

## APPENDIX H STRATEGIC EVALUATION

**Instructions** (remove this text box for the solid waste management plan)

*[NOTE: Ohio EPA recommends that the policy committee collaborate with the Ohio EPA Planner assigned to the SWMD prior to beginning the evaluation process described in this appendix. The Ohio EPA Planner can assist the policy committee in determining how to conduct each analysis, determine which analyses are most applicable to the SWMD, and explain the overall purpose of each analysis.]*

In this Appendix, the policy committee will complete a strategic process of evaluating its reduction and recycling efforts. To do this, the policy committee will evaluate the SWMD's programs and services in the context of factors that need to be considered when developing recycling and waste reduction programs. The policy committee will evaluate the status of its reduction and recycling efforts against these factors through a series of analyses. These analyses are intended to result in a holistic review of the SWMD. In total, the policy committee will conduct 13 analyses. The policy committee should conduct the analyses from the perspective of trying to learn something.

The combined results of the analyses will help the policy committee answer questions such as: is the SWMD adequately serving all waste generating sectors?; is the SWMD recovering high volume wastes such as yard waste and cardboard?; how well is the SWMD's recycling infrastructure being used/how well is it performing?; what is the SWMD's financial situation and ability to fund programs?; how effective is the SWMD's data collection system?; and how did the SWMD's situation in the reference year compare to where the current plan anticipated the SWMD would be?

The policy committee will draw conclusions from its findings and develop recommendations for addressing its conclusions. The idea is to develop a list of things the SWMD **could** do during the planning period. The list of recommendations will likely include more things than the SWMD can do during the planning period. Thus, just because the policy committee includes a recommendation on the list doesn't mean the SWMD is committed to doing something. The list is intended help the policy committee establish priorities for the solid waste management plan. From the list, the policy committee will decide which recommendations it wants the SWMD to address during the planning period. Ultimately, the priorities will direct the policy committee's decisions regarding the programs that the SWMD will provide.

The results of the strategic program evaluation will also help the policy committee identify an outreach priority for the outreach and marketing plan required by Goal 4 of the 2009 State Plan. The policy committee will develop the SWMD's strategy for addressing the outreach priority in Appendix I.

This appendix provides the instructions for performing the analyses. The policy committee will replace these instructions with text explaining the analyses and the findings from those analyses. The policy committee will use the information obtained in

this appendix to draw conclusions to complete Appendix I.

To conduct a number of the analyses, the policy committee will need to refer to historical data and information that is provided in other appendices. Thus, the policy committee will conduct these analyses after completing the historical portions of other appendices.

Several of the analyses involve benchmarking the performance of the SWMD's programs with programs in other solid waste management districts. This is not meant to be a comparison of success or failure or viewed as competition. It is meant to be a means of understanding how other solid waste management districts manage their programs and a chance to apply lessons learned to the SWMD's programs. It is also an opportunity to collaborate with other SWMDs on making programs as successful as possible.

The analyses described in this appendix incorporate comparing the current approved plan to the reference year situation. This will allow the policy committee to compare where it projected the SWMD would be to where the SWMD actually is. The purpose is for the policy committee to evaluate its projections and expectations for program performance against the reference year information. The policy committee will then use conclusions drawn from that evaluation to guide projections for recovery (Appendices E and F) and program decisions (Appendix I) for the plan update. Over time, these efforts will help the SWMD will develop improved techniques for making projections by learning from past efforts.

To conduct its strategic program evaluation, each policy committee will perform the analyses listed below. The policy committee may decide that there are factors in addition to those listed below that it wants to evaluate.

**[NOTES:** *While these analyses are listed separately, the policy committee may perform portions of several analyses at the same time. Conducting separate analyses for each of the factors listed below isn't as important as performing all of the analyses. For example, while performing the commercial sector analysis, the policy committee may address portions of the waste composition analysis or vice versa. If that happens, the policy committee does not have to duplicate those portions when it conducts the other analysis.*

*The policy committee has flexibility to decide how to complete these analyses. Ohio EPA has provided suggestions for things the policy committee can consider for each analysis. Some of these suggestions are relatively easy to do and some require more effort. Ohio EPA has not provided guidance on how many or which of the suggestions the policy committee should use. What is appropriate and doable will likely differ from one SWMD to another. Furthermore, Ohio EPA's suggestions are not all-encompassing – they are ideas. The policy committee should evaluate other factors that it believes to be relevant. However, Ohio EPA strongly encourages the policy committee to do as in-depth analyses as possible to obtain information necessary to make decisions.]*

Residential recycling infrastructure analysis  
Commercial sector analysis  
Industrial sector analysis  
Waste composition analysis  
Economic incentive analysis  
Restricted and difficult to manage waste analysis  
Diversion analysis  
Special program needs analysis  
Financial analysis  
Regional analysis  
Population analysis  
Data Collection Analysis  
Processing Capacity Analysis

Each analysis is described in more detail in a section devoted to that analysis.

**Section 1 Residential Recycling Infrastructure Analysis**

## 1. Residential Recycling Infrastructure Analysis

**Considerations for the Residential Recycling Infrastructure Analysis** (remove this text box for the solid waste management plan)

The policy committee will evaluate the SWMD's existing residential recycling infrastructure (completed in Appendix B) to determine if that infrastructure meets the needs of the residential sector and how that infrastructure is performing. The analysis will provide the policy committee with information that can be used to make decisions regarding the recycling infrastructure (i.e. new infrastructure or changes to existing infrastructure).

The policy committee could consider the following factors during this evaluation:

### *Geographical:*

- Are recycling opportunities clustered in parts of the county, such as urban areas, or are recycling opportunities distributed evenly throughout the county?
- Do residents in both rural and urban areas have convenient access to recycling options?
- Are there recycling opportunities in all communities where it makes sense to have recycling programs or are there communities that are not served (e.g. do residents in all major population centers have the opportunity to recycle?)?

### *Functionality*

- Are recycling opportunities in a community adequate for that community (i.e. adequately sized (too little or too much capacity), serviced often enough/too often, accessible)?
- Do residents in multi-family housing have access to recycling opportunities?
  - If no, how can the SWMD work with property managers to make recycling opportunities available?
  - If yes, are the available recycling opportunities convenient?
- Does the SWMD or the property manager market recycling opportunities to residents in multi-family housing units?
  - If no, can the SWMD work with the property manager to provide outreach to residents?
  - If yes, do the outreach materials need to be updated?
- If the community is served by a curbside recycling service, is there a drop-off(s) to serve residents that can't use the curbside program?
- Is the type of recycling program available in a community appropriate of the best option for that community (i.e. curbside vs. drop-off in the largest communities)? If not, the policy committee could evaluate the feasibility of upgrading the program and develop a strategy for achieving it. The policy committee could also look into how the SWMD can work with political leaders of the community to upgrade service. This strategy should include a process for evaluating the impacts of any upgrades.
- Do all recycling opportunities collect a comprehensive mix of materials, particularly

high volume materials such as paper and cardboard? If no, can the SWMD upgrade the collection mix to include new materials?

- Effectiveness vs. cost: How well is the recycling opportunity performing in relation to the resources used to provide it and in relation to other similar programs within the SWMD and in other SWMDs . Potential measures include:
  - cost per quantity collected (e.g. cost per pound or cost per cubic yard);
  - quantity collected per person who/per household that had the opportunity to use the opportunity; and
  - cost per person/per household served.
- Do all drop-offs being used to achieve Goal 1 meet the minimum standards? (These standards are provided in Appendix J). If not, what needs to be done to upgrade a drop-off to meet the standards?
- Is the SWMD experiencing problems (other than low participation)?
  - For drop-offs, potential problems include contamination, dumping outside of drop-offs, not enough capacity, not serviced often enough, traffic issues, lack of signs, not easily accessible, no/confusing instructions for using, inconsistent schedule, collect limited materials, multiple sorts, etc.
  - For curbsides, potential problems include: contamination, blowing litter, container size, missing customers on collection day, inconsistent schedule, wet materials, multiple sorts, limited materials collected, infrequent collection, etc.
- Do residents have access to information about available recycling opportunities?
  - If yes, how is that information made available? Does the information need to be updated? Is the information comprehensive? Is there additional information that the SWMD can provide? How frequent is the information distributed? For curbside programs, does the information address both existing users and new homeowners?
  - If no, how can the SWMD make information available?

*Comparison of reference year to currently approved plan*

- Compare the recycling infrastructure expected to be available in the reference year according to the current approved plan to the infrastructure actually available in the reference year:
  - Are there recycling opportunities that were in place under the current plan that were no longer available in the reference year for the plan update? Why were those opportunities discontinued? Did the SWMD realize a noticeable decrease in material recovered because the opportunities were discontinued?
  - Were there new recycling opportunities that were planned but didn't get implemented? Why?
  - Were there new recycling opportunities that weren't planned but were implemented?
  - If yes, were the new recycling opportunities the result of the SWMD's outreach efforts?
  - Did the SWMD realize a noticeable increase in material recovered?
  - Did the SWMD discontinue other recycling opportunities as a result?
  - What were the effects of changes in recycling opportunities on the SWMD's ability to achieve the goals of the state plan?
  -

**Participation/Performance:**

The policy committee will evaluate the existing recycling opportunities to determine how well they are being used/how well they are performing. These instructions describe some factors the policy committee could consider when conducting the participation/performance analysis. These factors are Ohio EPA's recommendations and are intended to be prompts to guide the policy committee's analysis. Of all of the analyses, analyzing participation has the potential to be the most complicated and time consuming. The policy committee is not required to use Ohio EPA's recommendations. However, Ohio EPA strongly encourages the policy committee to perform some type of participation analysis to learn more about how recycling opportunities are being used, and potential ways to improve underperforming opportunities, enhance higher performing opportunities, and learn about what makes recycling opportunities more and less effective/more or less successful.

**1. Evaluate the performance of each curbside program or drop-off.**

The policy committee will likely use different methods for measuring the performance of drop-offs and curbside programs.

**Drop-off locations**

There are at least three ways to evaluate the performance of drop-off programs:

- Evaluate performance of an individual drop-off over time;
- Evaluate relative performance by comparing drop-offs to one another; and
- Surveys.

To evaluate performance of drop-off sites, it is helpful to obtain the following information for each drop-off for the reference year and the four prior years:

- Quantity of material recovered. [**NOTE:** *Using the per capita quantities of material collected at drop-offs may provide a more useful comparison than using just pure weights. This requires defining the population served by the drop-off. Default populations would be 2,500 for a rural drop-off and 5,000 for an urban drop-off*];
- Types of materials collected [**NOTE:** *Include only materials typically collected through a drop-off (not materials like yard waste or appliances).*]; and
- Demographics of each community (income, age, education, rural vs. urban, etc.).

**Performance of individual site**

To evaluate the performance of an individual drop-off site, potential measures include:

- Quantity of material recovered over time; and
- Quantity recovered per capita over time (using the service area of 2,500 or 5,000 people).

Considering the historical information for the drop-off site, have the measures listed

above been increasing, been decreasing, remained constant, fluctuated inconsistently? Try to determine the reasons for the trend. Factors to consider include:

- Is there a correlation with disposal and generation trends?
- Is there a correlation between increases/decreases and outreach/lack of outreach?
- Are increases/decreases due to adding/removing materials from the collection?
- Was there a change in how materials are collected (single stream versus multiple sorts)?
- Is there an outlier in the data? What caused the outlier?
- Did changes in collecting data affect the measures (e.g. began receiving data per drop-off rather than as an aggregate of all drop-offs)?

### Relative Performance

This evaluation involves comparing drop-offs to one another to determine relative performance of each. The purpose is to determine which are the highest and lowest performing relative to one another. One way to do this is to compare the quantities collected. Potential measures include:

- Quantity of material recovered; and
- Quantity of material recovered per capita (using service area of 2,500 or 5,000 people).

Below are several suggestions on how to perform this evaluation:

- Compare the quantity of material recovered and quantity recovered per capita at each drop-off site against quantity recovered and quantity recovered per capita at other drop-off sites within the SWMD.
- Compare the quantity of material recovered and quantity recovered per capita at each of the SWMD's drop-off sites against quantity recovered and quantity recovered per capita at similar drop-off sites in other SWMDs.
- Compare like drop-offs (i.e. can't compare a full-time urban drop-off to a part-time rural drop-off).

**[NOTE: If the contract for servicing drop-offs doesn't currently require the service provider to report quantities of material collected per drop-off, then the SWMD might work with the contract holder to require the service provider to provide that information.]**

### Surveys

A policy committee can measure usage through face-to-face surveys (can be supplemented with telephone surveys).

Appendix T contains a toolkit that the policy committee can use to measure public participation at drop-off recycling centers. The toolkit was designed and field-tested during Ohio EPA's study. The toolkit can serve as a guide for anyone interested in replicating the study. This toolkit contains instructions for implementing the survey as well as the intercept and telephone survey instruments that were designed for Ohio

EPA's study.

Some of the details of Ohio EPA's study, such as individual survey questions or the criteria for site selection, may need to be modified slightly to meet the needs of a particular solid waste management district or municipality.

A policy committee may choose to develop its own survey protocol. Ohio EPA recommends that a policy committee wanting to use an alternate protocol consult with Ohio EPA prior to actually performing any surveys. In addition, the policy committee should review the information in Appendix T to get an idea of the factors that need to be taken into account such as:

- How to select sites to obtain a representative sample;
- When to survey (time of day; day of week; beginning, middle, or end of month; season);
- How many surveys of each site are needed;
- How to address repeat users; and,
- How to translate point-in-time capture results into an overall representation of usage.

### ***Curbside Recycling Services***

There are at least two ways to evaluate the performance of curbside services:

- Evaluate performance of an individual curbside service over time; and
- Evaluate relative performance by comparing curbside services to one another.

To evaluate performance of curbside recycling services, it is helpful to obtain the following information for each curbside service for the reference year and the four prior years:

- For non-subscription curbside services, the number of households with opportunity to use the curbside service (only those that the service is offered to (i.e. not multi-family housing units if the service isn't offered to them)). [**NOTE:** *it would also be useful to know the number of households that participate if that data is available or can be obtained.*];
- For subscription curbside services, number of households participating (i.e. number of subscriptions) and number of households that could participate;
- Quantity of material recovered;
- Types of materials collected [**NOTE:** *Include only materials typically collected through a curbside program (not materials like yard waste or appliances).*]
- Recycling rate;
- Cost of the service; and
- Demographics of each community (income, age, education, etc.).

### **Performance of an Individual Curbside Service**

To evaluate the performance of an individual curbside service, potential measures include:

- Quantity of material recovered over time;
- Quantity recovered per household over time;
- Recycling rate over time;
- Number of households participating over time; and
- Potential recovery (use an average weight for recyclables collected in the container (tote, cart) and use that average to determine how much could be recovered if the entire service area or additional households participated).

Using the historical information for the curbside service, have the measures listed above been increasing, been decreasing, remained constant, fluctuated inconsistently? Try to determine the reasons for the trend. Factors to consider include:

- Is there a correlation with disposal and generation trends?
- Are increases/decreases due to outreach/lack of outreach?
- Are increases/decreases due to adding/removing materials from the collection?
- Were the same containers used for all five years or were changes made (e.g. switched from using totes to using carts)?
- Were economic incentives introduced (e.g. pay-as-you-throw)?
- Is there an outlier in the data? What caused the outlier?
- Was there a change in the cost of the service to homeowners?
- Was there a change in the program (e.g. from subscription to non-subscription service)?
- Did changes in collecting data about the curbside service affect the measures?

### Relative Performance

This evaluation involves comparing curbside services to one another to determine relative performance of each. The purpose is to determine which are the highest and lowest performing relative to one another. Potential measures include:

For non-subscription curbside services:

- Quantity of material recovered per household (either per household with the ability to use the service (or per participating household));
- Recycling rate (requires ability to obtain quantities of both material recycled and trash disposed per community); and
- Participation rate, if number of participating households is available.

For subscription curbside services:

- Number of participating households as a percentage of total households that could subscribe to the service (not including multi-family units that can't participate);
- Quantity of material recovered per participating household; and
- Recycling rate (requires ability to obtain quantities of both material recycled and trash disposed per community).

**[NOTE: If a community's contract for curbside recycling service doesn't currently**

*require the service provider to report number of households that participate or the quantities of materials recycled, then the SWMD might work with the community to get provisions included in the contract to require that information. The same is true if a community's contract for trash service doesn't require the service provider to report quantity of waste disposed by that community.]*

Below are several suggestions on how to perform this evaluation:

- Compare the quantity of material recovered through and participation in each curbside service against recovery and participation for other curbside services within the SWMD. The purpose is to determine which are the highest and lowest performing relative to one another.
- Compare like services (i.e. can't compare a non-subscription service to a subscription service).
- Compare the number of households participating versus potential participation (the number of households with the ability to use the curbside service).
- Compare the per household weight of material collected to per household weights collected through similar curbside services in other SWMDs.

**3. Determine the factors that contribute to increased participation/recovery or that are barriers to better participation/recovery.**

*[Note: To properly complete this portion of the performance evaluation, the policy committee will need to research what contributes to high performance and low performance. This could involve researching literature, contacting other SWMDs that have solicited input from users, or conducting focus groups of users or surveying users.]*

**Suggestions for this evaluation include:**

- For drop-offs, consider factors such as:
  - location (is the site easy/difficult to find);
  - visibility/placement at the site (once at the site, is it easy to find the containers);
  - signs;
  - advertising/promotion;
  - mix of materials accepted (do some drop-offs collect high volume materials and others do not (such as cardboard) or are there other differences in the mix of materials collected);
  - availability (are they available often enough or at convenient hours (e.g. 24/7, during business hours only, part-time, once a month, available only during work hours, etc.);
  - ease of use (if the containers have lids, are the lids easy to open; are the openings too high);
  - single stream collection versus multiple sorts (does the sort make it harder to use the site?);
  - aesthetics;
  - safety (such as lighting, surrounding area);

- proximity to multi-family housing units versus single family homes (which could increase quantities collected per capita);
- proximity to commercial/industrial businesses (which could increase quantities collected per capita); and
- demographics (e.g. economic conditions of area, average household income etc.).
  
- For curbside services, consider factors such as:
  - collection frequency (weekly versus biweekly);
  - container characteristics (type (totes vs. carts), size, ease of moving);
  - mix of materials accepted (are there differences in the mix of materials collected, particularly for high-volume materials such as cardboard);
  - whether non-traditional households are included (e.g. multi-family housing units);
  - education/outreach (communities where outreach was provided may have better results than communities where outreach wasn't provided);
  - cost of the service to the homeowner;
  - presence or absence of economic incentives;
  - material sorts (single stream vs. multi stream); and
  - demographics of the community (economic conditions, household income, age, education, rural vs. urban, etc.).

#### **4. Look for commonalities and differences**

Try to identify commonalities among the highest performing curbside services and drop-off locations. Do the same for lower performing services and locations. Also, look for differences between successful and non-successful services and locations.

In the space indicated with “[replace with text to describe the residential recycling infrastructure analysis]”, provide text to explain how the policy committee analyzed the residential recycling infrastructure.

[replace with text to describe the residential recycling infrastructure analysis]

**Section 2 Commercial Sector Analysis**

## 2. Commercial/Institutional Sector Analysis

**Considerations for the Commercial/Institutional Sector Analysis** (remove this text box for the solid waste management plan)

The policy committee will evaluate the SWMD's commercial/institutional sector to determine if existing programs (offered either through the SWMD or other entities) are adequate to serve that sector or if there are needs that are not being met. The policy committee will also evaluate the strengths and weaknesses of its existing programs. The ultimate goal of the analysis is for the policy committee to determine if the commercial/institutional sector is already adequately served or if the SWMD can do more to address the commercial sector.

The commercial/institution sector consists of the following (this is not an exhaustive list):

Commercial businesses  
 Schools and universities  
 Government agencies  
 Office buildings  
 Stadiums  
 Amusement parks  
 Event venues (stadiums, concert halls,  
 Hospitals  
 Non-profit organizations

**[NOTE:** *SWMDs are generally unable to achieve Goal 2 without recovery from commercial/institutional sector generators. In Section H of this appendix, the policy committee will evaluate the SWMD's efforts to obtain data from the commercial sector.*]

The policy committee could consider the following factors during this analysis:

### *Geographical*

- Does a county have one or two large communities where commercial businesses/institutions are concentrated (such as a city surrounded by rural areas? The county seat? A county with one city?) . Are those businesses/institutions recycling? Are they recycling all large volume materials? Is there the potential for a coordinated recycling program? If businesses/institutions aren't recycling, why? Is there something the SWMD can do to facilitate obtaining recycling services for the businesses/institutions?
- Are there other commercial clusters within a county (such as in a university town, a mall) If yes, what types of businesses/institutions are in the cluster? What types of recyclable materials are generated? Are there recycling opportunities for all of those materials? If no, what type(s) of opportunities would best serve the cluster? How could the SWMD facilitate establishing a recycling program?
- Are there clusters of similar commercial businesses/institutions within a county (such as bars, restaurants, retail stores, office buildings)? Can the SWMD facilitate a combined program for the area (such as glass recycling program for

bars and restaurants or a paper recycling program for office buildings)? If a building exists with multiple tenants, can the SWMD facilitate recycling services for the tenants?

*Functionality*

- Is space to store a recycling container an issue for commercial businesses?
- Do contracts between landlords and tenants or between waste companies and landlords/tenants prevent recycling services? [**NOTE:** *Contracts for trash collection services may automatically renew, and landlords may not be aware of options for negotiating services*]? Can the SWMD assist with contracting or educate landlords/tenants about contracting?
- Is cost a barrier to commercial/institutional generators obtaining recycling services?
- Is the lack of available recycling options a barrier?

f

*Other Considerations:*

- Does the SWMD currently offer assistance to commercial/institutional generators, such as helping them identify recycling options, waste audits, contracting assistance?
  - If yes, did the SWMD actually work with any commercial businesses/institutions?
    - If yes, did the SWMD contact those businesses/institutions or did the businesses/institutions contact the SWMD? If businesses/institutions contacted the SWMD, how did they find out about the SWMD's services? Did the businesses/institutions implement reduction or recycling programs as a result of receiving assistance from the SWMD? Do the businesses/institutions report quantities of materials recycled to the SWMD? What are the strengths and weaknesses of the SWMD's services?
    - If no, how does the SWMD market the availability of services to businesses/institutions? Are those efforts sufficient? Is the SWMD's message reaching the intended audience? How can the SWMD improve how it markets its services?
  - If no, how can the SWMD provide assistance? Contracting assistance? Facilitate a workshop for commercial/institutional generators? Conduct a focus group of commercial businesses/institutions to identify needs and barriers to recycling?
- What are the largest commercial/institutional generators? –Do they have recycling services? Are they recovering the materials that constitute the largest portions of the waste stream? Does the SWMD get data from those generators?
- What types of privately-provided recycling services are available to commercial/institutional generators (ie. hauler provided services)? What types of services do commercial/institutional generators use? Are the services adequate/convenient? Is the lack of available service providers a barrier to commercial/institutional generators?
- Is data collection an issue? [**NOTE:** *The policy committee will analyze the*

*SWMD's data collection program in Section L later in this appendix.]*

- Do commercial/institutional generators have access to recycling programs for all of the recyclable materials they generate (i.e. more than just cardboard and paper), such as food waste and glass?
- Do local K-12 schools have in-school recycling programs?
  - Are those programs run by teachers or students? Serviced by custodial staff?
  - Are the programs comprehensive (do they collect all materials)?
  - Do different buildings within the same school district have a coordinated program?
  - Does the school receive money from its recyclable materials?
  - Does the SWMD provide recycling education in schools that don't have in-school recycling programs?
- Are there unique or other large generators that have special recycling needs - such as a university, prison, airport, convention center, event venue (arena, sports stadium,), hospital, amusement park, or other specific type of generator? Do those generators have recycling programs? If no, what could the SWMD do to help them obtain recycling services?
- Is the SWMD host to a unique commercial business or institution with a transitory/seasonal population? Examples include an amusement park, a university, and natural features which draw tourists (such as a large body of water or a national park). If yes and the population skews the SWMD's waste generation and/or disposal, then does the SWMD need to study the situation to gather data and determine how to address the specific needs of the transitory population? [**NOTE:** *the policy committee will analyze the influence of seasonal and transitory populations on waste disposed in Appendix D.*]
- Are there existing recycling opportunities, provided by either the SWMD or other entities, to allow the SWMD to achieve the commercial sector component of Goal 1?
- Are there a number of small commercial businesses that do not have access to recycling opportunities (can't get a service provider due to size)?
- Has the SWMD attempted to reach out to property management firms that manage large retail or office complexes? If yes, how successful have those efforts been? If no, can the SWMD begin outreach?
- Are there services that are needed but are not being provided? Can the SWMD assist in establishing those services or provide the services (e.g. direct services, such as "milk runs", waste audits, contracting assistance, working with local waste companies, etc.).
- Is the SWMD taking advantage of statewide initiatives (e.g. grants for bar and restaurant glass recycling and multi-family housing)?
- Does or can the SWMD involve other stakeholders, such as local chambers of commerce, trade associations, property management firms etc.?
- Has the size of the commercial sector (number of businesses, employment, etc.) been increasing, staying the same, or decreasing? How does that affect the SWMD and the programs it offers/should offer?
- Has the composition of the commercial sector (i.e. types of businesses) been changing or has it remained the same? How does that affect the programs the

SWMD offers/should offer?

*Evaluation of programs the SWMD provided [NOTE: the policy committee may have done some of this analysis by following suggestions above.]:*

For the programs the SWMD provided in the reference year, compare status of programs in the reference year with how programs were designed in the current approved plan.

What programs did the policy committee expect the SWMD to offer under the current plan?

- Were the programs implemented as anticipated by the policy committee? If yes, how did the programs perform? What were the impacts of the programs? What are the strengths and weaknesses of the programs? What worked and didn't work?
- Are there programs that were implemented but not as expected in the current plan? If yes, why? What was different between how a program was anticipated to work versus how it was implemented? Was the program successful? What are the strengths and weaknesses of the program? What worked and didn't work?
- Were there programs from the current plan that the SWMD didn't implement? If yes, why? Are there programs the SWMD could provide instead?
- Did the SWMD implement programs during the planning period that weren't anticipated in the current plan? If yes, why? What are the strengths and weaknesses of those programs? How did the programs perform? What were the impacts of the programs?

In the space indicated with “[replace with text to describe the commercial sector analysis]”, provide text to explain how the policy committee analyzed the commercial sector.

[replace with text to describe the commercial sector analysis]

**Section 3 Industrial Sector Analysis**

### 3 Industrial Sector Analysis

**Considerations for the Industrial Sector Analysis** (remove this text box for the solid waste management plan)

The policy committee will evaluate the SWMD's industrial sector to determine if existing programs (offered either through the SWMD or other entities) are adequate to serve that sector or if there are needs that are not being met. The ultimate goal of the analysis is for the policy committee to determine if there are programs the SWMD could provide to address the industrial sector or if that sector is already adequately served.

The policy committee could consider the following factors during this analysis:

- What are the largest industrial entities (by employees, output, generation)? What materials make up their waste streams?
- Do the largest entities have recycling services? If yes, are they recycling the materials that make up the largest components of their waste streams? If not, are there available options for the industries to recycle those materials? Can the SWMD help the industries obtain recycling services?
- Does the SWMD receive survey results from the largest entities? If yes, are the results reliable? If no, can the SWMD establish a relationship with the companies? **[NOTE: The policy committee will analyze the SWMD's data collection program in Section L later in this appendix.]**
- Are there entities that generate large quantities of waste that are not being recycled? If yes, is it because there isn't a market for the waste? Is it because the entity doesn't know about its options? No service providers?
- Are there any industrial parks in the SWMD? If yes, what types of businesses are in the park? What types of recyclable materials are generated? Are there recycling opportunities for all of those materials? If no, what type(s) of opportunities would best serve the park? How could the SWMD facilitate establishing a recycling program?
- What types of privately-provided recycling services are available to industrial generators (ie. hauler provided services)? What types of services do they use?
- Are there services that are needed but aren't being provided? Can the SWMD facilitate establishing those services?
- Are there any generators that strongly influence the SWMD's waste generation and recycling from year to year? Examples include a steel mill, an auto manufacturer, or others that are affected by the economic conditions.
- Does the SWMD engage the industrial sector/offer assistance to industrial businesses (such as helping them identify recycling options, waste audits, or contracting assistance)?
  - If yes, did the work with any industrial businesses?
    - If yes, did the SWMD contact those businesses or did the businesses contact the SMWD? If the businesses contacted the SWMD, how did the businesses find out about the SWMD's services? Was the SWMD able to provide requested services? Did the businesses implement reduction or recycling programs as a result of receiving assistance from the SWMD?

Do the businesses report quantities of materials recycled?

- If no, how does the SWMD market the availability of services to businesses? Are those efforts sufficient? Is the SWMD’s message reaching the intended audience? How can the SWMD improve how it markets its services? If the SWMD isn’t marketing the availability of its services, then how can the SWMD reach out to industrial businesses?
- If no, what assistance can the SWMD provide (e.g. facilitate a workshop with local industries, establish a workgroup of industrial representatives and SWMD staff that meets regularly to network, facilitate a focus group of industrial representatives to identify needs and barriers, contracting assistance, waste audits?)
- Is there an industrial association the SWMD can work with to establish relationships with industrial generators? [**NOTE:** *The policy committee will analyze potential partnerships in Section J later in this appendix.*]
- Has the size of the industrial sector (number of businesses, employment, etc.) been increasing, staying the same, or decreasing? How does that affect the SWMD and the programs it offers/should offer?
- Has the composition of the industrial sector (i.e. types of businesses) been changing or has it remained the same? How does that affect the programs the SWMD offers/should offer?

*Evaluation of programs the SWMD provided:*

For the programs the SWMD provided in the reference year, compare status of programs in the reference year with how programs were designed in the current approved plan.

What programs did the policy committee expect the SWMD to offer under the current plan?

- Were the programs implemented as anticipated by the policy committee? If yes, how did the programs perform? What were the impacts of the programs? What are the strengths and weaknesses of the programs? What worked and didn’t work?
- Are there programs that were implemented but not as expected in the current plan? If yes, why? What was different between how a program was anticipated to work versus how it was implemented? Was the program successful? What are the strengths and weaknesses of the program? What worked and didn’t work?
- Were there programs from the current plan that the SWMD didn’t implement? If yes, why? Are there programs the SWMD could provide instead?
- Did the SWMD implement programs during the planning period that weren’t anticipated in the current plan? If yes, why? What are the strengths and weaknesses of those programs? How did the programs perform? What were the impacts of the programs?

In the space indicated with “[replace with text to describe the industrial sector analysis]”, provide text to explain how the policy committee analyzed the industrial sector.

[replace with text to describe the industrial sector analysis]

**Section 4 Residential/Commercial Waste Composition Analysis**

#### 4. Residential/Commercial Waste Composition Analysis

##### Considerations for the Residential/Commercial Waste Composition Analysis

(remove this text box for the solid waste management plan)

Ohio EPA is **not** recommending that the policy committee conduct a waste sort to determine the composition of the SWMD's waste. For this analysis, the policy committee will look at the wastes that typically make up the largest portions of the residential/commercial waste stream and whether the SWMD currently has or should have programs to address those wastes.

Yard waste, food waste, and fiber (cardboard, and paper) typically comprise the largest portions of the waste stream by weight. At a minimum, the policy committee should evaluate the availability of and need for programs to recover those materials. The idea is to identify the materials that offer the greatest opportunities for recovery and provide programs for those materials.

The policy committee will determine whether generators within the SWMD have opportunities for recovering those materials (the SWMD does not have to be the provider of the program). If opportunities exist, then the policy committee will evaluate recovery through those opportunities. If small amounts of material are being recovered, then the policy committee will evaluate options for increasing recovery. If opportunities are not available, then the policy committee will evaluate what barriers exist to implementing programs and determine what programs the SWMD could either provide or facilitate establishing to improve recovery.

The policy committee should also identify any large quantities of wastes generated that are unique to the SWMD and evaluate whether those wastes are being recycled and, if not, what the SWMD may be able to do to make opportunities available.

For yard waste, here are examples of factors the policy committee could consider:

- How much yard waste was composted/diverted in the reference year versus other years? How does that amount compare to yard waste recovered elsewhere in Ohio? How does that amount compare to how much was projected for that year in the current solid waste management plan? Can the policy committee identify causes for differences?
- Were there factors in the reference year that might have contributed to larger/less amounts of yard waste recovered in other years (such as a major storm or drought? A facility that closed/opened? A community collection program that began/ended? Data received from a facility in one year but not others?)
- Is the existing infrastructure for recovering yard waste adequate (refer to the inventory in Appendix B)?
  - Are there publicly available composting facilities?
  - If yes, where? Are they being used? If existing facilities aren't being used, why? What can the SWMD do to increase use of facilities?

- If no, should there be? Where? What can the SWMD do to facilitate establishing facilities?
- Do communities have curbside collection of yard waste?
- If yes, how are those programs performing? Are the programs adequately promoted?
- If no, are their communities that should have collection service? Can the SWMD do anything to facilitate establishing collection services?
- What geographic areas generate the largest quantities of yard waste that need to be managed off generators' properties? Do those residents have convenient opportunities for yard waste?
- Does the SWMD have programs to educate residents about managing yard waste? Do those programs need to be updated? How does the SWMD market those programs to residents?

For food waste, the policy committee could consider:

- How much food waste was recovered during the reference year? How does that amount compare to food waste recovered in previous years and elsewhere in Ohio? How does the amount compare to the quantity projected in the current solid waste management plan? Can the SWMD identify causes for differences and for increases/decreases?
- Are there local programs for managing food waste – such as food banks, publicly available Class II composting facilities, anaerobic digestors, companies to transport food waste from the generator to the management facility, etc.
  - If yes, does the SWMD make this information available to generators of food waste? How effective is that outreach?
  - If no, is there something the SWMD can do to facilitate obtaining local service providers? Can the SWMD collaborate with other SWMDs to develop local services and management options?
- Are there large generators that may not be diverting their food waste, such as a large food manufacturer or processor, grocery stores, an area with a large concentration of restaurants, a university, a prison, etc.
- Does the SWMD have a program for educating generators about options for diverting food waste? If no, should the SWMD have a program? If yes, has the program been successful at reaching food waste generators? If no, why? How does the SWMD market its services? Can the SWMD improve marketing services to generators?
- Are there other things the SWMD can do to facilitate diverting food waste?

For fiber (paper and cardboard), the policy committee could consider:

- How much fiber waste was recovered during the reference year? How does that amount compare to fiber recovered in previous years and elsewhere in Ohio? How does the amount from the reference year compare to the quantity projected for that year in the current solid waste management plan? Can the policy committee identify causes for increases/decreases and differences?
- Do large office buildings or complexes have recycling programs for fiber?
  - If yes, how well are those programs performing? Are collection

- containers, material mix, and participation information (such as signs) adequate?
    - If no, what can the SWMD do to facilitate implementing programs?
- Do government offices have recycling programs for fiber?
  - If yes, how well are those programs performing? Are collection containers, material mix, and participation information (such as signs) adequate?
    - If no, what can the SWMD do to facilitate implementing programs?
- Are there local service providers for commercial fiber recycling routes?
- Are other large generators of fiber recycling it – such as distribution/warehouses, retail stores, restaurants, health care facilities, etc.
- Is fiber collected through available recycling opportunities (e.g. if a curbside program is a bag-based or tote based program, can residents recycle cardboard? If no, is there a way to include cardboard in the material collected?)
- Does the SWMD provide outreach to generators of fiber to help them identify recycling options?
  - If yes, has the program been successful at reaching fiber generators? How does the SWMD market its services? Are there other ways/more effective ways of contacting fiber generators?
  - If no, how can the SWMD reach out to generators?
- Are there other things the SWMD can do to facilitate diverting fiber?

*Evaluation of programs the SWMD provided:*

For the programs the SWMD provided in the reference year, compare status of programs in the reference year with how programs were designed in the current approved plan.

What programs did the policy committee expect the SWMD to offer under the current plan?

- Were the programs implemented as anticipated by the policy committee? If yes, how did the programs perform? What were the impacts of the programs? What are the strengths and weaknesses of the programs? What worked and didn't work?
- Are there programs that were implemented but not as expected in the current plan? If yes, why? What was different between how a program was anticipated to work versus how it was implemented? Was the program successful? What are the strengths and weaknesses of the program? What worked and didn't work?
- Were there programs from the current plan that the SWMD didn't implement? If yes, why? Are there programs the SWMD could provide instead?
- Did the SWMD implement programs during the planning period that weren't anticipated in the current plan? If yes, why? What are the strengths and weaknesses of those programs? How did the programs perform? What were the impacts of the programs?

*Evaluation of participation in state and/or local material-specific initiatives (i.e., glass and pharmaceuticals)*

Is the SWMD already participating in/taking advantage of programs for recovering specific materials?

- If yes, evaluate the effectiveness/recovery through those programs. Look at the instructions for the other material analyses above for direction.
- If no, why? What are the options for the SWMD to get involved (e.g. provide information, promote collection opportunities, implement a collection program, provide funding for a program)?

In the space indicated with “[replace with text to describe residential/commercial waste composition analysis]”, provide text to explain how the policy committee analyzed the wastes that make up the largest percentages of the waste stream.

[replace with text to describe the residential/commercial waste composition analysis]

**Section 5 Economic Incentive Analysis**

## 5. Economic Incentive Analysis

**Considerations for the Economic Incentive Analysis** (remove this text box for the solid waste management plan)

In accordance with Goal 6 of the *2009 State Solid Waste Management Plan*, the SWMD is required to explore how to incorporate economic incentives into source reduction and recycling programs. For this analysis, the policy committee will evaluate any existing economic incentives that it offers to encourage people to recycle. If private companies and/or the SWMD do not currently offer economic incentives, then the policy committee will evaluate the feasibility of implementing incentives. If the SWMD does offer economic incentives, the policy committee will evaluate the performance of those incentives.

Some factors the policy committee could consider include the following:

- Are there communities with pay-as-you-throw (PAYT)/volume-based trash collection programs?
  - If yes,
    - Is the trash receptacle used/method of assessing cost the most effective (e.g. bag based program versus container based program)?
    - Is the cost structure of the program/range of trash container sizes adequate to encourage recycling?
    - Are the homeowners served by curbside recycling programs? Do homeowners pay for the service separate from or through the PAYT fees?
    - Are the types of recycling containers used conducive to recycling/could switching the containers result in better recovery (e.g. if using bags, can residents recycle cardboard?)
    - Is the volume of the recycling container large enough?
    - Can the SWMD take advantage of the volume-based alternative demonstration for Goal 1?
    - How are programs performing (relative to other programs within the SWMD or compared to programs in other SWMDs). If the programs are performing better than expected/better than other similar programs, then identify the factors that contribute to the performance. If programs are underperforming, evaluate the weaknesses and barriers preventing higher performance and determine ways of overcoming those weaknesses and barriers.
  - If no,
    - Why? No interest from communities for switching to a PAYT system? No private service providers that offer PAYT collection? What can the SWMD do to facilitate establishing PAYT services?
- Does the SWMD provide outreach to communities regarding PAYT collection?
  - If yes, has the outreach been successful at getting communities to implement PAYT services? How does the SWMD market itself to

communities? Are there other ways/more effective ways of contacting communities? Are there specific communities the SWMD could work with?

- If no, how can the SWMD reach out to generators?
  - Can the SWMD offer assistance with reviewing existing trash service contracts and developing bid specifications for combined PAYT and recycling services?
- Does the SWMD have an economic incentive program to encourage communities to implement recycling services or to recycle more material through existing services (e.g. a community-based financial incentive grant program)?
  - If yes,
    - is the funding for the program adequate? If no, can the SWMD devote more money to the program?
    - is the methodology for determining how much money a community will receive appropriate (e.g. based on population vs based on quantity recovered vs based on recycling rate)?
    - does the funding strategy encourage communities to implement the best recycling programs possible (i.e. incentivize PAYT and curbside recycling over traditional trash collection and drop-offs)
    - have communities begun recycling more material after receiving incentive grants?
  - If no,
    - Why? Inadequate revenue to fund a program?
- Does the SWMD or another entity provide any other types of financial incentive programs, such as residential reward programs (e.g. “Get Caught Recycling”, Recycle Bank, etc.)?
  - If yes, how have the programs performed?
  - If no, can the SWMD provide a financial incentive program or facilitate someone else providing a financial incentive?

If there were no economic incentive programs available in the SWMD in the reference year (offered either through the SWMD or other entities), then, in accordance with Goal 6 of the 2009 State Plan, the policy committee must evaluate the feasibility of implementing an incentive program.

- Research programs implemented by other SWMDs for ideas.
- Evaluate available funding.

*Evaluation of programs the SWMD provided:*

For the programs the SWMD provided in the reference year, compare status of programs in the reference year with how programs were designed in the current approved plan.

What programs did the policy committee expect the SWMD to offer under the current plan?

- Were the programs implemented as anticipated by the policy committee? If yes, how did the programs perform? What were the impacts of the programs? What are the strengths and weaknesses of the programs? What worked and didn't work?
- Are there programs that were implemented but not as expected in the current plan? If yes, why? What was different between how a program was anticipated to work versus how it was implemented? Was the program successful? What are the strengths and weaknesses of the program? What worked and didn't work?
- Were there programs from the current plan that the SWMD didn't implement? If yes, why? Are there programs the SWMD could provide instead?
- Did the SWMD implement programs during the planning period that weren't anticipated in the current plan? If yes, why? What are the strengths and weaknesses of those programs? How did the programs perform? What were the impacts of the programs?

In the space indicated with “[replace with text to describe the economic incentive analysis]”, provide text to explain how the policy committee analyzed economic incentives.

[replace with text to describe the economic incentive analysis]

**Section 6      Restricted and Difficult to Manage Waste Streams  
Analysis**

## 6. Restricted and Difficult to Manage Waste Streams Analysis

**Considerations for the Restricted and Difficult to Manage Waste Analysis** (remove this text box for the solid waste management plan)

Goal 5 of the 2009 State Plan requires SWMDs to provide strategies for managing scrap tires, yard waste, lead-acid batteries, household hazardous waste, and obsolete/end-of-life electronic devices.

For this analysis, the policy committee will evaluate existing programs the SWMD offers for managing restricted wastes and difficult to manage wastes. If the SWMD does not currently offer programs for those wastes, then the policy committee will evaluate the need for and feasibility of providing them.

**[Note:** *The policy committee likely will analyze programs for collecting yard waste in the waste composition analysis. If that is the case, then the policy committee does not need to repeat the analysis here.*]

Although not required by the 2009 State Plan, there are other difficult to manage wastes that a number of SWMDs provide programs for and that all SWMDs should consider for potential programs. These wastes include:

- Appliances;
- Pharmaceuticals;
- Household and rechargeable batteries; and
- Bulky items (such as furniture, carpet, mattresses, etc.).

Some factors the policy committee could consider include the following:

- Are there programs offered either by the SWMD or by others to address all of the wastes required by Goal 5? **[NOTE:** *The policy committee will have to demonstrate that the SWMD will provide programs for all wastes in Appendix I.*]
- Does the SWMD provide collection programs (e.g. temporary collection event, permanent collection location) for any of the wastes addressed by Goal 5?
  - If yes, then evaluate available collection program.
    - Is the collection program convenient to all residents in the SWMD?
    - Is the amount of money the SWMD spends on the collection program worth the quantity of materials managed (particularly when considered in light of other things the policy committee would like the SWMD to do)?
    - How does the cost per unit collected or per person served compare to cost per unit or per person served for others (more expensive, less expensive, about the same)? Can the policy committee identify reasons for differences in costs? Are there things other SWMDs do to keep their costs low that the SWMD can do (e.g not accepting latex paint)?
    - Does the SWMD assess user fees for participating in collection programs? If yes, is the amount of the user fee adequate or too much? If no, should the SWMD assess user fees?
    - Are the quantities managed through the collection program commensurate

- to those managed by other SWMD for similar programs (per capita?).
  - How does the SWMD advertise collection programs? Can the policy committee correlate participation rates to advertising efforts? Are there ways the SWMD can improve how it advertises collection programs?
  - What are the strengths and weaknesses of the program? What works and doesn't work
  - Compare the collection program as it was provided in the reference year to how the policy committee anticipated the program would be provided in the currently approved plan:
    - Did the SWMD make changes to the program during the planning period? If yes, why and what were the effects of those changes?
    - How did the quantities of material collected compare to the quantities projected in the currently approved plan? If the quantities were different, what can the policy committee learn about developing projections for the plan update?
- If no, then:
  - How does the SWMD address restricted wastes? Through outreach (webpage, printed materials, etc.)? Does the SWMD provide information about properly managing the wastes? Provide information about local places to take restricted wastes?
  - Do the SWMD's outreach programs need to be updated?
  - Does the SWMD monitor usage of available information (e.g. number of visitors to web pages, quantity of printed material distributed)? If yes, is the information frequently accessed/requested (ie are the ways the SWMD makes information available effective)? If no, how can the policy committee evaluate usage of the SWMD's information sources?
  - Does the SWMD solicit input into the effectiveness of its outreach? If yes, how has the SWMD used that input? If no, how could the SWMD get feedback about its outreach?
  - What other ways can the SWMD make information available or are there ways the SWMD can improve how it makes information available?
  - Does the SWMD regularly update available information? Does the information need to be updated? Does the SWMD need to establish a schedule for reviewing and updating the information being made available?
  - Is a collection program something the SWMD could provide? If yes, then should the program be a temporary collection event or a more permanent collection program? How much would a collection program cost? Can the SWMD offset the cost of a program with user fees? Can the SWMD collect multiple materials through the same program?
  - Can the SWMD collaborate with other solid waste management districts to provide a collection program (e.g. a consortium for hazardous waste collection, agreements between solid waste management districts to allow residents from both solid waste management districts to participate in each other's events)?
  - Is the SWMD participating in statewide or local initiatives for managing

restricted or hard to manage wastes (e.g. pharmaceutical collection)? If no, should and how can the SWMD participate?

- Does the SWMD apply for available grants for scrap tire collection programs? If no, should the SWMD apply in future grant rounds?
- Are there privately-provided programs for recycling restricted and difficult to manage wastes available in the SWMD (e.g. companies or other organizations that recycle electronics, lead-acid batteries, etc.)?
  - If yes, does the SWMD maintain a list of available programs?
    - If yes, then how does the SWMD make that list available? What can the SWMD do to improve how it makes people aware of the programs? How often does the SWMD update its list? **[NOTE: If the SWMD does not maintain a list, then the SWMD will create one as part of the comprehensive resource guide required by Goal 3 of the 2009 State Plan].**
  - If no, then should the SWMD provide programs? Is there anything the SWMD can do to help develop privately-provided programs? What else can the SWMD do to provide residents with options?

*Evaluation of programs the SWMD provided:*

For the programs the SWMD provided in the reference year, compare status of programs in the reference year with how programs were designed in the current approved plan.

What programs did the policy committee expect the SWMD to offer under the current plan?

- Were the programs implemented as anticipated by the policy committee? If yes, how did the programs perform? What were the impacts of the programs? What are the strengths and weaknesses of the programs? What worked and didn't work?
- Are there programs that were implemented but not as expected in the current plan? If yes, why? What was different between how a program was anticipated to work versus how it was implemented? Was the program successful? What are the strengths and weaknesses of the program? What worked and didn't work?
- Were there programs from the current plan that the SWMD didn't implement? If yes, why? Are there programs the SWMD could provide instead?
- Did the SWMD implement programs during the planning period that weren't anticipated in the current plan? If yes, why? What are the strengths and weaknesses of those programs? How did the programs perform? What were the impacts of the programs?

In the space indicated with “[replace with text to describe the restricted and difficult to manage waste stream analysis]”, provide text to explain how the policy committee analyzed restricted and difficult to manage waste streams.

[replace with text to describe the restricted and difficult to manage waste streams analysis]

**Section 7      Diversion Analysis**

## 7. Diversion Analysis

**Considerations for the Diversion Analysis** (remove this text box for the solid waste management plan)

For this analysis, the policy committee will evaluate the quantities of waste the SWMD reduced/recycled in the reference year and four prior years. The SWMD will refer to data in Appendices E and F.

**[NOTE:** If the SWMD's data is more than three years old, then the policy committee needs to collect new data.]

All SWMDs will measure and analyze their waste diversion regardless of whether they opt to achieve Goal 1 or Goal 2. There are general factors that all policy committees should consider. There are also specific factors a policy committee should evaluate depending upon whether the SWMD demonstrated achieving Goal 1 or Goal 2 in its currently approved solid waste management plan.

Some general suggestions for ways the policy committee can analyze diversion include:

- Did the SWMD achieve Goal 2 in the reference year?
  - If no, is it because of inadequate or bad data, lack of available programs, a large quantity of a particular waste that isn't being recovered, a large quantity of a particular waste that can't be recovered?
  - If yes, is it due to obtaining good data? Can the policy committee attribute data to specific programs?
- Trend – has the diversion rate been increasing, been decreasing, remained constant, fluctuated inconsistently?
  - Can variation in amounts recovered be explained by an outlier (such as: a large ice storm or other natural disaster that resulted in more yard waste composted in one year than in others; a large processing facility or generator returned a survey in one year but not in others; a significant recycling program was started/discontinued)?
  - If decreasing rate, can it be explained at least in part by recovery of lighter weight material (such as plastic replacing glass)?
- How does the diversion trend correlate with disposal and generation trends?
- What contributed to/caused increases/decreases?
- How does the SWMD's rate compare to the residential/commercial and industrial rates prescribed by Goal 2?
- How does the SWMD's rate compare to those for other, similar SWMDs? How does the SWMD's per capita recycling rate compare to those for other SWMDs?
- How does the SWMD's rate compare to the average diversion for Ohio?
- What materials comprise the largest amounts of all material recycled?
- What sectors are responsible for the greatest diversion?
- Are there materials that make up large portions of the waste stream that aren't being recycled in large quantities? **[NOTE:** refer to the results of the waste composition analysis completed for C above.]

- Are there sectors where more diversion is possible?
- Which programs result in the greatest diversion?
- Are there programs that should be diverting more material?
- Are there factors that contributed to higher than normal recovery of a material (e.g. yard waste due to a storm event)?
- How much waste does the current plan project would be recovered in the reference year? Is the projected quantity higher, lower, or similar to how much was actually recovered? Are there factors that the policy committee did not consider/could not anticipate that resulted in inaccurate projections? How can the policy committee apply what it learned to projections for this plan update?

**SWMDs that demonstrated achieving Goal 2 in their currently approved plans**

If the policy committee opted to demonstrate achieving Goal 2 in its current approved plan and the SWMD did not achieve the goal, then evaluate and explain contributing factors such as

- What contributed the most to not meeting the goal? Lack of data? Programs? Underperforming recycling opportunities?
- If programs or recycling opportunities didn't perform as projected, can the policy committee determine why? If the SWMD will continue those programs or recycling opportunities how can it improve performance?
- Evaluation/measurement of programs or recycling opportunities revealed that projected recovery was estimated too high.
- The SWMD was unable to or did not collect data or did collect data but obtained limited data. - Explain why. [**NOTE:** *The policy committee will evaluate data collection efforts in Section L below.*]
- Key generators/recyclers that responded to past surveys did not respond to the survey for the reference year. Is it because they went out of business?
- Planned programs weren't implemented or existing programs were discontinued – Explain why and how those influenced the reduction and recycling rates.
- The SWMD determined that material previously credited was not creditable. Explain why.
- Were quantities of waste disposed higher than projected or did disposal increase more than quantities recovered?

If the policy committee opted to demonstrate achieving Goal 2 in its current approved plan and the SWMD did achieve the goal, then evaluate and explain contributing factors such as

- Did programs or data collection contribute the most to total quantities recovered?
- What programs/activities contributed the most to quantities recovered?
- Are there programs that recovered more materials than were projected to or were the quantities recovered close to projections?
- Were unanticipated programs implemented? If yes, what programs and how

did those programs affect quantities recovered?

- Did decreases in the quantities of waste generated or disposed contribute to achieving the goal?
- Is there a correlation between the quantities disposed and recovered (e.g. disposal decreased while recovery increased or both disposal and recovery increased, but recovery increased more)?

**SWMDs that demonstrated achieving Goal 1 in their currently approved plans:**

If the SWMD demonstrated achieving Goal 1 in its current approved plan, then compare the SWMD’s waste reduction and recycling rate in the reference year with the rate projected for that year in the current approved plan and develop conclusions about differences. Consider factors such as:

- Did the SWMD achieve its target waste reduction and recycling rates?
  - If the rate was higher than projected, what contributed to the higher rate?
    - Was it programs or data collection that contributed the most to total quantities recovered?
    - What programs/activities contributed the most to quantities recovered?
    - Are there programs that recovered more materials than were projected to?
    - Were unanticipated programs implemented? If yes, what programs and how did those programs affect quantities recovered?
    - Did decreases in the quantities of waste generated or disposed contribute to achieving the goal?
    - Is there a correlation between the quantities disposed and recovered (e.g. disposal decreased while recovery increased)?
    - Were there factors that contributed to higher than projected/normal recovery of a material (e.g. yard waste due to a storm event)?
  - If the rate was lower than projected, what contributed to the lower rate?
    - If programs didn’t perform as projected. Explain why (if SWMD will continue those programs, how will it improve performance?)
    - Evaluation/measurement of programs revealed that projected recovery was estimated too high.
    - The SWMD’s was unable to or did not collect data or did collect data but obtained limited data. - Explain why. [**NOTE:** *The policy committee will evaluate the SWMD’s data collection efforts in Section L later in this appendix. In addition, Appendix R provides suggestions for ways to improve data collection techniques.*]
    - Key generators/recyclers that responded to past surveys did not respond to the survey for the reference year. Is it because they went out of business?
    - Planned programs weren’t implemented or existing programs were discontinued – Explain why and the effects on the reduction and recycling rates.
    - The SWMD determined that material previously credited was not

credible. Explain why.

- Quantities of waste disposed were higher than projected and increased more than quantities recovered.

In the space indicated with “[replace with text to describe the diversion analysis]”, provide text to explain how the policy committee analyzed diversion.

[replace with text to describe the diversion analysis]

**Section 8 Special Program Needs Analysis**

## 8. Special Program Needs Analysis

**Considerations for the Special Program Needs Analysis** (remove this text box for the solid waste management plan)

Ohio Revised Code Section 3734.57(G) gives SWMDs the authority to fund a number of activities that are not related to achieving the goals of the state solid waste management plan. In addition, there are other programs that SWMDs fund that are not addressed in either the state plan or law. If the SWMD already funds or provides any of these activities or programs, then the policy committee will evaluate the performance and status of those activities and programs in the reference year and the value to the SWMD. If the SWMD did not fund or provide these activities and programs in the reference year, then the policy committee will evaluate whether it needs to fund or provide any of them to address local needs.

Potential allowable uses to consider include:

- Cleaning up solid waste and scrap tire dumps (particularly if the SWMD has a large number of open dumps).
- Health department support [pursuant to ORC Section 3734.57(G)(3) and (G)(7)].  
[**NOTE:** SWMDs can provide financial support to only those health departments that have been approved by Ohio EPA to enforce the solid waste laws and rules.]
- Enforcement agency support [pursuant to ORC Section 3734.57(G)(7)].
- Financial assistance for counties for the costs of hosting a solid waste facility [pursuant to ORC Section 3734.57(G)(4)].
- Paying the costs incurred by a board of health for collecting and analyzing samples from public or private water wells on lands adjacent to solid waste facilities [pursuant to ORC Section 3734.57(G)(5)].
- A program for inspecting solid wastes generated outside of Ohio and disposed of at solid waste facilities located within the SWMD [pursuant to ORC Section 3734.57(G)(6)].
- Financial assistance to municipal corporations and townships for the costs of hosting a composting, energy or resource recovery, incineration, or recycling facility [pursuant to ORC Section 3734.57(G)(9)].

Other needs to consider include:

- Funding to pay for closing a facility landfill and/or pay for post-closure care of a closed facility.
- Disaster debris management/disaster response.

Staffing needs.

- Other needs that are unique to the SWMD.

*Evaluation of programs the SWMD provided:*

For the programs the SWMD provided in the reference year, compare status of programs in the reference year with how programs were designed in the current approved plan.

What programs did the policy committee expect the SWMD to offer under the current

plan?

- Were the programs implemented as anticipated by the policy committee? If yes, how did the programs perform? What were the impacts of the programs? What are the strengths and weaknesses of the programs? What worked and didn't work?
- Are there programs that were implemented but not as expected in the current plan? If yes, why? What was different between how a program was anticipated to work versus how it was implemented? Was the program successful? What are the strengths and weaknesses of the program? What worked and didn't work?
- Were there programs from the current plan that the SWMD didn't implement? If yes, why? Are there programs the SWMD could provide instead?
- Did the SWMD implement programs during the planning period that weren't anticipated in the current plan? If yes, why? What are the strengths and weaknesses of those programs? How did the programs perform? What were the impacts of the programs?

Does the SWMD have contracts with agencies the SWMD provides funding to? Does the SWMD have a means of monitoring how agencies spend the money they are given? Do those agencies report to the SWMD regarding how they used the money?

In the space indicated with “[replace with text to describe the special program needs analysis]”, provide text to explain how the policy committee analyzed the SWMD's special program needs.

[replace with text to describe the special program needs analysis]

**Section 9 Financial Analysis**

## 9. Financial Analysis

**Considerations for the Financial Analysis** (remove this text box from the solid waste management plan)

For this analysis, the policy committee will evaluate the SWMD's financial position, not just in terms of its current situation but also in terms of what the SWMD's financial situation will be during the planning period. While performing this analysis, the policy committee should keep in mind thinking about its finances in terms of both being able to finance its core programs and what the policy committee wants the SWMD to do during the planning period. The policy committee will use what it learns from conducting this analysis when completing Appendix O (Financial Data).

The policy committee will use the historical financial data from Appendix O when performing its financial analysis (i.e. data from the reference year and the four prior years).

### Revenues

Below are some suggestions for evaluating revenue:

- Have the SWMD's recent revenues been increasing, been decreasing, remained constant, or fluctuated inconsistently? What factors contributed to the trend or influenced revenue receipts?
  - How does the trend correlate with disposal and generation trends?
  - If the SWMD has multiple sources of funding, has revenue from one source changed more than others? How? Why?
  - Are increases due to receiving revenue from a new revenue mechanism?
  - Are decreases due to discontinuing an existing revenue mechanism?
  - Is there a year where revenue was much higher/lower than normal? If yes, what caused the outlier? How does the outlier skew the trend? Would eliminating the outlier result in a more definitive trend or a more accurate basis for making projections?
  - Are any changes associated with a particular facility/facilities?
  - Can an outlier be explained by something like a natural disaster, power being out for an extended period of time (lots of spoiled food disposed) or some other event that would cause more waste to have been disposed than normal?
- What funding mechanisms provide the most money? How stable are those mechanisms?
- Are there any threats to the ongoing security of a major funding source (such as a landfill closing and no longer being able to collect disposal fee)? Are there more stable funding sources the SWMD could use?
- Is the lack of available money preventing the SWMD from meeting the goals of the state plan?
- How much revenue does the SWMD earn per person? How does that compare to other SWMDs?

- Are there nearby solid waste management districts that are proposing to designate facilities? How will that affect waste flows to landfills located within the SWMD?
- Has the SWMD recently designated facilities or is proposing to designate facilities? How will/would that affect the SWMD's revenues?
- Are there any facilities that remit revenue to the SWMD that will/may close?
- Are there any new facilities (e.g. landfills or transfer facilities) planned/opening that could affect waste flows and how much waste the SWMD will collect fees on?
- What are the fee structures of nearby SWMDs? If higher/lower than the SWMD's, how do those fees affect the flow of waste into or out of the SWMD?
- Is a nearby solid waste management district ratifying changes to its fees? How could that affect the flow of waste?
- Compare the amount of money earned through each revenue source in the reference year to how much the policy committee projected the SWMD would earn for that year from that source in the currently approved plan. Review the policy committee's methodology for making projections. How accurate were the policy committee's revenue projections? Are there factors that the policy committee did not consider/could not anticipate that affected the accuracy of projections? How can the policy committee apply what it learned to projections for this plan update?

In addition to the factors listed above, a policy committee could consider the following revenue-specific factors:

**Disposal fee**

- Where did the waste that was disposed at landfills located within the SWMD originate?
  - How much waste was from within the SWMD versus from other SWMDs or out of state? Which contributes the most to the SWMD's revenue?
  - Have the quantities from each source changed or been consistent?
  - Is there a large contract for waste collection that comprises a significant portion of total waste disposed (e.g. trash collection for a major city)?
    - If yes, when is that contract up for renewal? Has the company that won the contract changed recently? Does the contracted company change frequently? Does which company has the contract affect whether waste comes to landfills located within the SWMD? If yes, where is the waste disposed of when it doesn't come to the SWMD? What are the resulting effects on revenue receipts?
- If the SWMD has a disposal fee, did the SWMD recently change its fee structure? If yes, how did this change how much revenue the SWMD received?
- If revenues from the disposal fee changed from what the policy committee projected in the currently approved plan and/or have changed over the past five years, then identify the changes.
  - Are changes in revenue due to changes in the quantities of in-district, out-of-district, and/or out-of-state waste received? Can the policy committee identify the reasons for those changes?
  - Did a landfill in another SWMD close and waste was redirected to a landfill(s) in the SWMD? Did a landfill in the SWMD close and waste that

previously was disposed within the SWMD went to a landfill(s) in another SWMD?

- Did a landfill in the SWMD increase its intake of waste (with something like a railroad spur or by accepting fracking waste) or decrease its intake of waste?
- Did the SWMD implement flow control causing more waste that previously went to landfills in other SWMD to stay in the SWMD? Did another SWMD implement flow control diverting waste away from a landfill in the SWMD?
- Did waste flows change due to a change in a contract for waste hauling services?

**Generation fee:**

- How much waste generated by the SWMD was disposed in facilities located within the SWMD versus disposed at facilities located outside of the SWMD?
- Are the quantities of waste on which a facility paid fees the same as the quantities the owner/operator of the facility reported receiving from the SWMD in its facility annual report?
- How much waste generated by the SWMD was routed through transfer facilities prior to being taken to a landfill? Which landfills did each transfer facility send its waste to? Was any of the SWMD's waste mischaracterized during the process?
- If the SWMD has a generation fee, did the SWMD recently change the amount of the fee? If yes, how did it change how much revenue the SWMD received?
- If revenues from the generation fee changed from what the policy committee projected in the currently approved plan and/or have changed over the past five years, then identify what caused the changes.
  - Was waste that was previously mischaracterized as originating in another SWMD re-characterized as coming from the SWMD or vice versa?
  - Are changes in revenue from the generation fee due to changes in the quantities of waste disposed?
  - Did a transfer facility begin taking waste from the SWMD causing potential mischaracterization of waste?
  - Did waste that was previously disposed of in Ohio go to a facility located in another state?
  - Did a facility begin/cease reporting having taking waste from the SWMD even though the facility historically didn't/did take waste from the SWMD?

**Other Revenue Sources:**

Evaluate other sources the SWMD uses for revenue following the same train of thought as for disposal and generation fees (i.e. evaluating change over the past several years and the reasons for the change). Things to consider for individual funding sources are provided below

- Contracts - does the SWMD have negotiated contracts (not associated with facility designations) with owners/operators of waste facilities to remit revenue (e.g. per ton of waste received from out-of state?) Will those contracts expire soon? Is the SWMD confident that it can renegotiate contracts for at least

equivalent revenue? What about the potential for more revenue?

- Rates and Charges – If the SWMD assess rates and charges, is being unable to collect from all improved parcels affecting the SWMD’s revenue? Does the SWMD have a system for collecting delinquent accounts?
- Recycling Revenue
  - Have revenues earned on recyclables increased, decreased, remained constant, or fluctuated inconsistently?
  - Are changes in revenue due to changes in the quantities of recyclables recovered? If yes, what contributed to the change (e.g., added/removed a material from the collection mix; changed from totes to carts; new curbside program/existing curbside program discontinued; increase/decrease in number of drop-offs; change from multi-stream collection to single stream collection; etc.)
  - Are changes due to increased/decreased value of recyclables?
  - Did the SWMD recently negotiate/renegotiate profit sharing with a processor?
- Loans, Bonds, How does paying off an existing loan affect the SWMD’s ability to fund programs?\_ If the SWMD is considering a new loan, how would paying off the loan affect the SWMD’ s ability to fund programs and maintain a positive balance?
- Designation agreements (look at the recommended analyses for the disposal and generation fees)
- Tipping Fees If the SWMD receive revenues from a solid waste facility (such as a county-owned landfill or transfer facility), is the facility expected to operate for the entire planning period? Has the facility reported having accepted more/less waste in recent years? Is the amount the SWMD receives fixed or variable?
- Misc. (user fees, county contributions)

**Expenditures**

- Compare the amounts of money spent in the reference year to how much the policy committee projected the SWMD would spend for that year in the currently approved plan. Review the policy committee’s methodology for making projections. How accurate were the expenditure projections? Are there factors that the policy committee did not consider/could not anticipate that resulted in inaccurate projections? Are there specific programs with actual versus projected expenditures that were significantly different? How can the policy committee apply what it learned to projections for this plan update?
- Have the SWMD’s recent expenditures increased, decreased, remained constant, or fluctuated inconsistently? Why? Are increases due to implementing a major new program? Due to inflation? Are decreases due to discontinuing one or more programs? Is there a year that is an anomaly? If yes, what caused the anomaly (such as a major purchase)?
- What are the SWMD’s major expenditures? Have expenditures on those programs changed significantly? Do the most expensive programs help the SWMD meet the goals of the state plan? Are there ways the SWMD can make changes to expensive programs to decrease the cost while maintaining the same level of service?

- How much does the SWMD spend on specific programs relative to other SWMDs on a per capita basis?
- Are there new programs the policy committee wants the SWMD to implement but can't afford? How could the SWMD fund those new programs? Can the SWMD assess a user fee? Increase amount of existing fee? Implement a new source of revenue? Decrease expenditures in other areas?
- Will the SWMD construct or operate a new facility or make upgrades to an existing facility? If yes, how much will it cost (consider both capital and operational costs)? How would the SWMD get the money to cover the cost? **[NOTE: The policy committee will prepare a budget for a facility in Appendix O.]**
- Can the SWMD eliminate other programs or change those programs to reduce the costs of them in favor of freeing up money to fund new programs or improve other programs?
- Are there any contracts for services that will expire soon and there is the potential for the cost of a new contract to be higher?
- Cost/benefit analysis – are the programs that the SWMD spends large amounts of money on worth the results?
- Are overhead expenditures projected to increase (like salaries, benefits, rent, etc.). How much? What are increases based on?
- Are there any upcoming capital improvements the SWMD intends to make/would like to make? How much would those improvements cost?
- How will inflation affect the costs of programs?
- If the SWMD operates a facility or services drop-off locations or curbside recycling programs, what is the breakdown between capital costs and operating costs? Have operating costs been increasing, decreasing, or fluctuating inconsistently? What has contributed to the change (e.g. cost of fuel, increased/decreased staff, salary increases, equipment repair, etc.)?

**Carry over balance:**

- Has the SWMD been spending or accumulating cash balances? Why? Due to increased/decreased revenue? Due to increased/decreased expenditures? Is the cash balance higher or lower than projected in the currently approved plan?
- If the SWMD has been spending its cash balance, then how long can the SWMD continue to pay for its current costs, spend its cash balance and still be financially solvent? If the SWMD could experience a shortfall, when?
- In the event of a projected shortfall, how would the SWMD resolve it? Increase revenue? How? Decrease expenditures? Which expenditures?
- If SWMD has been accumulating a cash balance, then are there new or existing programs the SWMD can spend the money on? Does the SWMD need to reduce its fees because it is accumulating significant money?
- How much money does the SWMD maintain on-hand for emergencies? Is that amount adequate to cover expenses during an emergency?

In the space indicated with “[replace with text to describe the financial analysis]”, provide text to explain how the policy committee analyzed its finances.

[replace with text to describe the financial analysis]

**Section 10 Regional Analysis**

## 10. Regional Analysis

**Considerations for the Regional Analysis** (remove this text box from the solid waste management plan)

The purpose of the regional analysis is for the policy committee to consider regional opportunities for collaboration and partnerships, and to also consider how the policy committee's decisions may impact other stakeholders in the region. This analysis may result in the creation of a systematic plan to communicate, collaborate and/or partner with the stakeholders identified through this process.

Although SWMDs are all working towards common goals, the methods as to which those goals are achieved can differ across jurisdictional boundaries. For example, education and outreach, recycling services, and fees can differ significantly between one SWMD to another. This can cause confusion to residents and businesses who often times cross jurisdictional boundaries or conduct business in several SWMDs. This analysis will allow a policy committee to analyze the feasibility of collaborating and partnering with neighboring SWMDs, and other stakeholders, to promote a cooperative and consistent message, offer standardized services, and to examine the impact of each other's decisions.

To facilitate this analysis, the policy committee might consider convening a meeting of coordinators from adjacent solid waste management districts to discuss regional opportunities and impacts.

### Identify Regional Stakeholders

Consider identifying all stakeholders in the region who have a key interest and involvement in SWMD programs, problems and solutions. Regional stakeholders are not limited to neighboring SWMDs. Other stakeholders could include universities, private entities, local agencies, municipalities, townships, recyclers, haulers and nonprofits. Identify stakeholders who are the people, interest groups, public/private entities and organizations who:

- Have a necessary involvement in SWMD activities
- Who cause the problems
- Are the affected by the problems
- Solve the problems
- Have the resources to create and implement solutions
- Will be affected by those solutions
- Are needed to effectively and credibly define problems and create solutions

### Communication and Collaboration

By promoting communication and collaboration, the SWMD may be able to connect stakeholders, activities, processes and information that will benefit each entity involved. Below are some basic principles of collaboration:

- **Networking** – the sharing or exchanging of information for a mutual benefit
- **Coordinating**- networking and altering activities to achieve common goals
- **Cooperating** – coordinating, sharing and, or pooling resources for a mutual benefit
- **Collaborating** – cooperating and enhancing the capacity of another, for mutual benefit to achieve a common purpose

A crucial step in a successful and meaningful collaboration is to open the lines of communication between the stakeholders that were identified above. Policy committees may find it helpful to facilitate a meeting among those stakeholders. Other steps for a successful collaboration include:

- Defining a clear need to collaborate
- Working together to define and solve problems
- Having a strong commitment to collaboration and support from each stakeholder
- Having an open process that allows each individual/entity to be heard
- Identifying and having strong leadership
- Strong stakeholder participation
- Resolving conflict as it arises
- Overcoming any mistrust between individuals and entities that stem from historical experiences

### **Regional Partnerships**

Along the same lines of collaboration, explore opportunities to partner with neighboring SWMDs. By partnering with another SWMD, there may be opportunities for costs savings by sharing services. For example, would it be possible to partner up and hire a regional education specialist? Not only would this save on costs to each SWMD involved but it would also ensure that a consistent message is being delivered to residents and to businesses in the region.

Below are some topics to consider for this analysis:

- Is the SWMD already participating in regional programs with one or more other SWMDs?
  - Are those programs formal or informal?
  - If the SWMD is participating in regional programs, are there opportunities for improving those programs or expanding participation to other SWMDs?
- What's the potential of forming a mutually beneficial partnership with one or more SWMDs in the region?
- Do SWMDs in the region face similar problems or issues that can be the focus of a collaborative effort for a solution?
  - How are neighboring SWMDs handling or approaching the similar problem?
- Are there opportunities for collaboration with nearby SWMDs for services (such as processing facilities, providing education, sharing of staff, collection events,

etc.)?

- Are there opportunities for collaborative contracting among local jurisdictions (e.g. contracting for trash or recycling services)?
- Are there other entities in the area that the SWMD would benefit from partnering with (such a city or university)?

### Regional Impacts

The policy committee should consider that decisions made by one SWMD, can have adverse impacts on their own district and vice versa. Although some may not realize it, SWMDs and their activities are all interconnected and the individual decisions regarding solid waste management in one district, may impact residents, local governments and businesses in other districts in the region.

Below are some examples of decisions that may have a regional impact:

- If the policy committee intends for the SWMD to designate where waste can go, has the policy committee evaluated the impacts of the surrounding solid waste management districts and other identified stakeholders?
- If the policy committee is recommending a change to the SWMD's funding mechanisms, has the policy committee evaluated the impacts on surrounding solid waste management districts and other identified stakeholders?
- Opening/closing a recycling center/MRF
- Opening/closing a solid waste facility
- Franchising/cooperative contracting as it affects the flow of waste and other SWMD's abilities to collect fees (i.e. a hauler that also owns a facility starting to take waste to their facility when multiple haulers used to take waste to different facilities)

Has the policy committee evaluated the impacts they may encounter if a neighboring SWMD implements any of the above activities or actions?

**[Note: the above examples do not represent a comprehensive list of activities that may have a regional impact.]**

In the space indicated with “[replace with text to describe the regional analysis]” provide text to explain how the policy committee analyzed regional stakeholders, collaboration, partnerships and impacts.

[replace with text to describe the regional analysis]

**Section 11 Population Analysis**

## 11. Population Analysis

**Considerations for the Population Analysis** (remove this text box from the solid waste management plan)

For this analysis, the policy committee will evaluate whether how population change will affect the programs the SWMD offers.

**[NOTE:** *this analysis applies to solid waste management districts that have a rapidly changing population, such as a county or an individual community. SWMDs with counties and communities that will have incremental increases/decreases in population will not need to conduct this analysis.*]

Some factors the policy committee could consider include the following:

- Is there a county or community that has experienced or is projected to experience significant population change? If yes, then the policy committee should project change for the community or county in Appendix B. If no, then the policy committee is finished with this analysis.
- Will the change in population change the infrastructure the SWMD needs to provide to the county or the community?
- Will the change in population affect the SWMD's ability to demonstrate achieving Goal 1 for the entire planning period?

In the space indicated with "[replace with text to describe the population analysis]" provide text to explain how the policy committee analyzed the SWMD's population and any conclusions/recommendations the policy committee identified from the results of the analysis.

[replace with text to describe the population analysis]

**Section 12 Data Collection Analysis**

## 12. Data Collection Analysis

**Considerations for the Data Collection Analysis** (remove this text box from the solid waste management plan)

The purpose of this analysis is for the policy committee to analyze the SWMD's current data collection efforts and to identify ways the SWMD can improve its data. The conclusions drawn from this analysis will be used to develop improvements in Appendix I. [NOTE: Appendix R provides suggestions for ways to improve surveying techniques.]

To truly understand and analyze the data collection program, a policy committee should describe, in detail, the data collection process from beginning to end for each sector. The policy committee should also list the sources of data for each sector. The policy committee should identify the staff involved in the data collection process and should estimate the amount of time data collection requires.

### Residential:

- How does the SWMD collect data for the residential sector?
- Are haulers, processors and other facilities surveyed?
- Are there gaps in the data? In other words, are there known recycling activities occurring that just aren't being reported? Can a plan be developed to fill those "gaps"?
- Does the SWMD use published Ohio EPA data? If so, what portions of that data are used?
- Have issues with Ohio EPA data been identified?
- What other sources of data are being used?

### Commercial:

- How does the SWMD collect data for the commercial sector?
- Does the SWMD distribute a commercial survey?
  - If so, how are commercial entities identified?
  - How many attempts does the SWMD make to solicit a response?
  - What mode(s) of surveying are offered?
  - What is the response rate of the commercial survey?
  - What problems are encountered when surveying the commercial sector?
- Are haulers, processors and other facilities surveyed?
- Are there gaps in the data? In other words, are there known recycling activities occurring that just aren't being reported? Can a plan be developed to fill those "gaps"?
- Does the SWMD make an effort to meet with any commercial entities one on one?
- Does the SWMD use published Ohio EPA data? If so, what portions of that data are used?
  - Have issues with Ohio EPA data been identified?
- What other sources of data are being used?
- How is double counting prevented?

### Industrial:

- How does the SWMD collect data for the industrial sector?
- Does the SWMD distribute an industrial survey?

- If so, how are those industries identified?
- How many attempts does the SWMD make to solicit a response?
- What mode(s) of surveying are offered?
- What is the response rate of the industrial survey?
- What problems are encountered when surveying the industrial sector?
- Are haulers, processors and other facilities surveyed?
- Are there gaps in the data? In other words, are there known recycling activities occurring that just aren't being reported? Can a plan be developed to fill those "gaps"?
- Does the SWMD make an effort to meet with any industrial entities one on one?
- Does the SWMD use published Ohio EPA data? If so, what portions of that data are used?
  - Have issues with Ohio EPA data been identified
- What other sources of data are being used?
- How is double counting prevented?

Other factors the policy committee should consider include:

- Does the SWMD partner with any other entity to solicit survey responses?
- What is the frequency of data collection efforts?
  - Does it differ by sector?
- Is the data, or lack thereof, preventing the SWMD from achieving Goal #2 of the State Plan?
- Are all entities being surveyed or is the survey targeted to a select few that meet certain criteria?
  - What criteria are being used to select survey participants?
- How does the policy committee believe data collection could be improved?
- How long are the surveys for each sector?
- What kind of data are entities being asked to provide?
- Does the SWMD collaborate with the assigned Ohio EPA planner?
- Does the SWMD have the staff available to dedicate the time needed to perform a comprehensive data collection effort? If not, has the policy committee considering alternative methods (ex. Hiring an intern, working with a local university etc.)?

In the space indicated with "[replace with text to describe the data collection analysis]" provide text to explain how the policy committee analyzed the SWMD's data collection efforts.

[replace with text to describe the data collection analysis]

**Section 13      Recyclable Material Processing Capacity Analysis**

### 13. Processing Capacity Analysis

**Considerations for the Processing Capacity Analysis** (remove this text box from the solid waste management plan)

One possible obstacle to implementing new recycling services and implementing initiatives to recover more material through existing services is lack of processing capacity. Before a SWMD can increase recovery of materials, there has to be adequate capacity to process the materials within a reasonable driving distance.

The purpose of this analysis is for the policy committee to evaluate existing capacity for processing recovered materials. Through this analysis, the policy committee will determine if there are things the SWMD can/needs to do to facilitate obtaining processing capacity. The policy committee will use the results of this analysis for its demonstration of access to processing capacity in Appendix M.

Some questions the policy committee could consider include the following:

- Where are recyclable materials from the SWMD processed? [**NOTE:** *if the SWMD owns and operates a processing facility, then the policy committee will evaluate that facility below.*] Do those facilities have enough capacity/ability to process more material?
- How far away are available processing facilities?
- Do communities/businesses/schools/others pay processing costs? How much? How do those costs compare to processing costs in other parts of the state? Do communities/businesses/schools/others share profits with the owner of the processing facility?
- Is/are the lack of regional processing capacity, the high cost of transporting materials to a processing facility, and/or the current cost of processing materials a barrier/barriers to improving recovery of recyclable materials?
  - If yes:
    - Are materials transported directly to a processing facility or are they routed through a transfer facility?
    - Are there processing facilities in the region not currently being used to process recyclable materials from the SWMD? Do those facilities have the ability to accommodate how recyclables are collected in the SWMD (i.e single versus multiple sort)? Do they have the ability to process more recyclables?
    - Is there a processing facility in the area that doesn't have enough capacity to accept additional material? Can the SWMD work with the owner of the facility to upgrade capacity and make it capable of taking material from the SWMD? Can the SWMD work with the owner to obtain a grant from Ohio EPA for upgrades?
    - Is there a publicly-owned processing facility in the area that strictly takes material from its service area (such as a county or city-owned facility that processes material from only the county or city?). Can the SWMD collaborate with the owner to expand the service area?

- Does/could the SWMD assist communities/businesses/others with contracting to obtain better processing costs?
- Would it make sense for the SWMD to build or contract with a private company to build or operate a transfer facility for recyclable materials?
- Should the SWMD consider building and operating a processing facility for recyclable materials?

If the SWMD operate a material recovery facility/recycling center/processing facility, then evaluate that facility. Some factors the policy committee could consider include the following:

- Is the current facility adequate to handle all material currently being managed? How about manage additional material?
- If the facility operating at capacity and the SWMD will implement programs to increase quantities of materials recovered, where will those materials be processed?
- How old is the equipment? Does it need frequent repairs? Do shutdowns frequently affect the ability to process materials? Is the equipment old technology that isn't efficient (such as manual sort versus automated sort)? Does SWMD need to replace equipment? How much would that cost? Where/how would the SWMD obtain the money? Is it worth the investment?
- Are there other processing facilities nearby that could take materials if the SWMD no longer operated its own facility? How do the processing costs at those facilities compare to the costs at the SWMD's facility (could evaluate by finding out how much communities/businesses pay to use the facility).
- Is the facility a dual/multiple sort facility or a single stream facility? If a multiple sort facility, does that limit converting local curbside and drop-off services to single stream and/or automated services? Is there a demand for single stream/automated collection service in the area? What would it take to convert the facility to single stream service?
- Was the facility established before other entities established processing facilities in the area? If yes, Does it make sense for the SWMD to continue operating its facility/upgrade its facility given other available options?
- How does the SWMD staff the facility? Does the SWMD rely on paid staff or "volunteers", such as from a prison work program? Are there issues that complicate operations or staffing the facility, such as union issues, high turnover rates?
- Does the SWMD have frequent worker injuries/workers compensation claims?

In the space indicated with "[replace with text to describe the processing capacity analysis]" provide text to explain how the policy committee analyzed the presence/absence of processing capacity for recovered materials.

[replace with text to describe the processing capacity analysis]