

## **APPENDIX J Reference Year Opportunity to Recycle and Demonstration of Achieving Goal 1**

### **A. Residential Sector Opportunity to Recycle**

During the period of this Plan the Darke County Solid Waste Management District will continue to meet the requirements of Goal 1 of the Ohio State Plan. Appendix J provides demonstrations of the programs and facilities that were used in the Reference year and that will be used throughout the planning period. To meet the requirements of Goal 1 the District must demonstrate access to recycling through a curbside or drop-off program available to a minimum of 80% of the population of the District. The credit a program is given toward this goal depends on the services offered and the likelihood that residents will be able to participate in the program.

Non-subscription curbside programs are available to residents automatically within a defined area. All residents of the area living in single-family homes receive the service whether they sign up for it or not. The waste collection fee automatically includes curbside recycling on a regular basis at least every two weeks. Both the Versailles and Arcanum curbside collection programs meet this criterion. The District receives credit for the entire population of the area served by non-subscription curbside programs.

Subscription curbside service refers to a type of curbside recycling service for which residents must voluntarily sign up for and agree to pay for the service. The programs listed in Table J-1 are all offered by a waste hauler. All residents who pay for waste collection are automatically entitled to weekly curbside recycling collection. The District can credit 25 percent of the population of the jurisdictions where the service is offered in lieu of other more difficult documentation methods to confirm the number of subscribers.

The default population credit for full-time, urban drop-offs that meet the criteria is 5,000. The default credit for a full-time rural drop-off is 2,500. It is noted that some of the townships where the drop-offs are located have populations less than 2,500. Most of the drop-off locations are near highways that connect District households to employers, schools, and commercial areas. As such, the drop-offs serve the general area and use of a drop-off is not limited to a specific township, village, or city.

**Table J-1. Opportunity to Recycled: Curbside and Drop-off**

| ID #                             | Darke County                                | 2018   |        | 2022 1st Year of Plan |        | 2026 - 5th Year of Plan |        | 2031 - 10th Year of Plan |        | 2036 - 15th Year of Plan |        |
|----------------------------------|---|--------|--------|-----------------------|--------|-------------------------|--------|--------------------------|--------|--------------------------|--------|
|                                  | Name of Community (City, Village, Township) | Pop.   | Credit | Pop.                  | Credit | Pop.                    | Credit | Pop.                     | Credit | Pop.                     | Credit |
| <b>Non-subscription curbside</b> |   |        |        |                       |        |                         |        |                          |        |                          |        |
| NCS1                             | Versailles Village                          | 2,576  | 2,573  | 2,526                 | 2,526  | 2,464                   | 2,464  | 2,395                    | 2,395  | 2,333                    | 2,333  |
| NCS2                             | Arcanum Village                             | 2,017  | 2,017  | 1,978                 | 1,978  | 1,929                   | 1,929  | 1,875                    | 1,875  | 1,827                    | 1,827  |
| <b>Subscription curbside</b>     |   |        |        |                       |        |                         |        |                          |        |                          |        |
| SC1                              | Greenville City                             | 12,698 | 3,175  | 12,450                | 3,113  | 12,146                  | 3,036  | 11,804                   | 2,951  | 11,501                   | 2,875  |
| SC2                              | Palestine Village                           | 186    | 47     | 182                   | 46     | 178                     | 44     | 173                      | 43     | 168                      | 42     |
| SC3                              | Adams Township                              | 3,498  | 875    | 3,430                 | 857    | 3,346                   | 836    | 3,252                    | 813    | 3,168                    | 792    |
| SC4                              | Brown Township                              | 1,198  | 300    | 1,175                 | 294    | 1,146                   | 286    | 1,114                    | 278    | 1,085                    | 271    |
| SC5                              | Butler Township                             | 1,477  | 369    | 1,448                 | 362    | 1,413                   | 353    | 1,373                    | 343    | 1,338                    | 334    |
| SC6                              | Franklin Township                           | 1,187  | 297    | 1,164                 | 291    | 1,135                   | 284    | 1,103                    | 276    | 1,075                    | 269    |
| SC7                              | Greenville Township (note 1)                | 4,208  | 1,052  | 4,126                 | 1,031  | 4,025                   | 1,006  | 3,912                    | 978    | 3,811                    | 953    |
| SC8                              | Harrison Township                           | 2,448  | 612    | 2,400                 | 600    | 2,342                   | 585    | 2,276                    | 569    | 2,217                    | 554    |
| SC9                              | Jackson Township                            | 2,762  | 691    | 2,708                 | 677    | 2,642                   | 660    | 2,567                    | 642    | 2,502                    | 625    |
| SC10                             | Liberty Township                            | 1,024  | 256    | 1,004                 | 251    | 979                     | 245    | 952                      | 238    | 927                      | 232    |
| SC11                             | Monroe Township                             | 1,648  | 412    | 1,616                 | 404    | 1,576                   | 394    | 1,532                    | 383    | 1,493                    | 373    |
| SC12                             | Neave Township                              | 2,242  | 561    | 2,198                 | 550    | 2,144                   | 536    | 2,084                    | 521    | 2,031                    | 508    |
| SC13                             | Richland Township                           | 810    | 203    | 794                   | 199    | 775                     | 194    | 753                      | 188    | 734                      | 183    |
| SC14                             | Twin Township (note 2)                      | 1,866  | 467    | 1,830                 | 457    | 1,785                   | 446    | 1,735                    | 434    | 1,690                    | 423    |
| SC15                             | Van Buren Township                          | 1,405  | 351    | 1,378                 | 344    | 1,344                   | 336    | 1,306                    | 327    | 1,273                    | 318    |
| SC16                             | Washington Township                         | 1,272  | 318    | 1,247                 | 312    | 1,217                   | 304    | 1,182                    | 296    | 1,152                    | 288    |
| SC17                             | Wayne Township                              | 4,301  | 1,075  | 4,217                 | 1,054  | 4,114                   | 1,028  | 3,998                    | 1,000  | 3,895                    | 974    |

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|---|--|--|--------|--------|-----------------------|--------|-------------------------|--------|--------------------------|--------|--------------------------|--------|
|   | Name of Community (City, Village, Township)                      |  | Pop.   | Credit | Pop.                  | Credit | Pop.                    | Credit | Pop.                     | Credit | Pop.                     | Credit |
| <b>Full-time, urban drop-off</b>                        |  |  |        |        |                       |        |                         |        |                          |        |                          |        |
| FTU1  | Rumpke Recycling Facility<br>Greenville                          |  | 12,698 | 5,000  | 12,450                | 5,000  | 12,146                  | 5,000  | 11,804                   | 5,000  | 11,501                   | 5,000  |
| New   | Location to be decided and site<br>place by 2022                 |  | 12,698 | 5,000  | 12,450                | 5,000  | 12,146                  | 5,000  | 11,804                   | 5,000  | 11,501                   | 5,000  |
| <b>Part-time, urban drop-off</b>                        |  |  |        |        |                       |        |                         |        |                          |        |                          |        |
|   | None   |  |        |        |                       |        |                         |        |                          |        |                          |        |
| <b>Full-time, rural drop-off</b>                        |  |  |        |        |                       |        |                         |        |                          |        |                          |        |
| FTR1  | To be decided (formerly Adams<br>Twp). No credit until available |  | 3,498  |        | 3,430                 |        | 3,346                   |        | 3,252                    |        | 3,168                    |        |
| FTR2  | Allen Township (New Weston)                                      |  | 1,085  | 2,500  | 1,064                 | 2,500  | 1,038                   | 2,500  | 1,009                    | 2,500  | 983                      | 2,500  |
| FTR3  | Brown Township (Ansonia)   |  | 1,988  | 2,500  | 1,949                 | 2,500  | 1,902                   | 2,500  | 1,848                    | 2,500  | 1,801                    | 2,500  |
| FTR4  | Butler Twp. (New Madison area)                                   |  | 1,477  | 2,500  | 1,448                 | 2,500  | 1,413                   | 2,500  | 1,373                    | 2,500  | 1,338                    | 2,500  |
| FTR5  | Harrison Township (Hollansburg)                                  |  | 2,448  | 2,500  | 2,400                 | 2,500  | 2,342                   | 2,500  | 2,276                    | 2,500  | 2,217                    | 2,500  |
| FTR6  | To be decided. formerly<br>Jackson and<br>Neave Twps.            |  | 2,762  |        | 2,708                 |        | 2,642                   |        | 2,567                    |        | 2,502                    |        |
| FTR7  | No credit listed   |  | 2,242  |        | 2,198                 |        | 2,144                   |        | 2,084                    |        | 2,031                    |        |
| FTR8  | Patterson Township (Osgood)                                      |  | 1,340  | 2,500  | 1,314                 | 2,500  | 1,282                   | 2,500  | 1,246                    | 2,500  | 2,333                    | 2500   |
| FTR9  | Twin Township (note 2)   |  | 1,866  | 2,500  | 1,830                 | 2,500  | 1,785                   | 2,500  | 1,735                    | 2,500  | 1,690                    | 2500   |
| FTR10   | Wabash Township (North Star)                                     |  | 847    | 2,500  | 830                   | 2,500  | 810                     | 2,500  | 787                      | 2,500  | 767                      | 2500   |
| FTR11   | Wayne Township (note 3)  |  | 2,576  | 2,500  | 2,526                 | 2,500  | 2,464                   | 2,500  | 2,395                    | 2,500  | 2,333                    | 2500   |
| <b>Part-time, rural drop-off</b>                        |  |  |        |        |                       |        |                         |        |                          |        |                          |        |
|   | None   |  |        |        |                       |        |                         |        |                          |        |                          |        |
| <b>Mixed municipal waste material recovery facility</b> |  |  |        |        |                       |        |                         |        |                          |        |                          |        |

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|--------------------------------|---|--------|--------|-----------------------|--------|-------------------------|--------|--------------------------|--------|--------------------------|--------|
|                                | Name of Community (City, Village, Township) | Pop.   | Credit | Pop.                  | Credit | Pop.                    | Credit | Pop.                     | Credit | Pop.                     | Credit |
|                                | None  |        |        |                       |        |                         |        |                          |        |                          |        |
| <b>Total County Population</b> |   | 50,784 |        | 49,793                |        | 48,575                  |        | 47,207                   |        | 45,996                   |        |
| <b>Total Population Credit</b> |   | 45,648 |        | 45,345                |        |                         | 44,970 |                          | 44,548 | 44,175                   |        |
| <b>Percent of Population</b>   |   | 90%    |        | 91%                   |        | 93%                     |        | 94%                      |        | 96%                      |        |

note 1: Population of Greenville Twp. minus population of Greenville City

note 2: Population of Twin Twp. minus population of Arcanum Village

note 3: Population of Wayne Twp. minus the population of Versailles Village

Assumptions: The District assumes that the populations for cities, villages, and townships will decrease at approximately the same rate as the projected decrease in the population of the District.

Calculation: The percent of the population with access is derived by dividing the access population credit number by the total population of the district. The result is expressed as a percentage rounded to the nearest whole number.

The District plans to exceed the residential/commercial requirements of Goal 1 for the entire planning period. All of the curbside and drop-off programs are expected to be continued throughout the planning period.

## **B. Commercial Sector Opportunity to Recycle**

The commercial sector includes retail and wholesale businesses, schools, banks, government office buildings, and similar businesses and organizations. In order to demonstrate compliance with plan standards the District must address the service area which is the entire area of Darke County that is with the exception of the parts of Bradford and Burkettsville that are not in the District. .

Compliance with Goal 1 requires that the District demonstrate adequate opportunities for recycling materials generated by commercial establishments. The District selected 5 materials from a list of materials often generated in large amounts by businesses. The five materials that the District is using for this demonstration are corrugated cardboard, office paper, mixed paper, steel cans and containers, and wood pallets and packaging. Although Table J-4 only lists five materials, many of the private sector service providers listed accept and recycle other materials that are generated by commercial businesses.

Some of the listed facilities are in the District. Many are outside of the District. The village or city in which the facility is located is included. All facilities are in Ohio unless otherwise identified. From information provided by respondents to the District's commercial surveys, all of private sector service providers listed have provided the services to one or more businesses located in the District.

Most of the private sector recyclers will provide pick-up services depending upon the amount and commercial value of the material being offered. Commercial businesses and institutions that do not generate enough material to make collection service feasible are encouraged to contact the Waste District to explore possible options which may include pairing businesses to share recycling container services or using the publicly available drop-off containers if the type and amount of the material is acceptable.

**Table J-4. Infrastructure Demonstration for the Commercial Sector**

| Service Provider  | Recycling Service  | Cardboard | Office Paper | Mixed Paper | Steel Cans* | Pallets Wood Packaging |
|---|--|-----------|--------------|-------------|-------------|------------------------|
| <b>Private Sector Recyclers</b>   |  |           |              |             |             |                        |
| 1-Shot Recycling, Bradford  | Scrap yard   |           |              |             | √           |                        |
| A & M Pallet, Russia  | Pallet Refurbisher   |           |              |             |             | √                      |
| Anderson Pallet, Lewisburg  | Pallet Refurbisher   |           |              |             |             | √                      |
| Best Way  | Waste Hauler and recycling services  | √         |              |             |             |                        |
| Boggs Recycling, Newbury  | Scrap yard   |           |              |             | √           |                        |
| Confidential Material Destruction, Kettering  | Hauler, Document and Paper Recycling   |           | √            | √           |             |                        |
| Franklin Iron & Metal, Dayton   | Scrap yard,  |           |              |             | √           |                        |
| Integrity Metals, Connersville, IN  | Scrap yard, Hauling service*   |           |              |             | √           |                        |
| Kamps Pallets, Versailles   | Pallet Refurbisher   |           |              |             |             |                        |
| Midwest Iron & Metal, Dayton  | Scrap yard,  |           |              |             | √           |                        |
| Montgomery Paper, Dayton  | Fiber recycler,  | √         | √            | √           |             |                        |
| Ohio Recycling Inc., Chickasaw  | Scrap yard   | √         | √            | √           | √           |                        |
| Rumpke Waste Collection and Recycling, Greenville   | Waste collection and recycling services. Drop-off available at Rumpke Greenville Transfer Facility                         | √         | √            | √           | √           |                        |
| West Rock, Eaton, Indiana   | Fiber processor  | √         | √            | √           |             |                        |
| <b>Institutional Recycling Opportunities Provided by District : School Recycling Drop-offs - One 6-yard container at each site listed</b> |  |           |              |             |             |                        |
| Ansonia Schools   | Multi-material Drop-off .<br>Materials accepted are the same as residential drop-offs: OCC, News, MxP, Glass, StC, AIC,PIC | √         | √            | √           | √           |                        |
| Versailles Schools  |  | √         | √            | √           | √           |                        |
| Arcanum Butler Schools  |  | √         | √            | √           | √           |                        |
| Franklin Monroe Schools   |  | √         | √            | √           | √           |                        |
| Mississinawa Schools  |  | √         | √            | √           | √           |                        |
| Tri-Village Schools   |  | √         | √            | √           | √           |                        |
| St. Mary's School   |  | √         | √            | √           | √           |                        |
| Anthony Wayne Early Child Education Center  |  | √         | √            | √           | √           |                        |

**C. Demonstration of Meeting Other Requirements for Achieving Goal 1**

**1. Residential/Commercial Waste Reduction and Recycling Rate**

The District did not demonstrate meeting the 25% or above residential/commercial recycling goal in the reference year 2018. The calculated recycling rate was 19.73%. The District's

intention in this Plan is to provide programs to increase participation of residents, businesses, and institutions in existing recycling opportunities, to decrease the amount of contamination in drop-off and curbside recycling containers, and to improve data collection, particularly data from the commercial and institutional sectors. In APPENDIX K, Table K-1, the District projects modest increases in waste diversion to attain a recycling rate of 25% by 2026, year 5 of the planning period. The District will make every effort to attain the 25% goal sooner and to exceed the 25% during the planning period. However, the 2015 Plan projections have proven to be unrealistic. In this plan, the District is taking what is believed to be a more realistic approach.

## **2. Industrial Waste Reduction and Recycling Rate**

The industrial recycling rate in the reference year, 2018 was 83.48%. The District anticipates modest increases in industrial production over the planning period. The District will continue to work with industries that request assistance in finding recycling markets for materials that do not have established markets and in applying for grants to expand the infrastructure needed to divert additional material. However, the District is projecting some growth in industrial disposal as production increases. The generation of waste may grow faster than diversion. Therefore the projection for industrial recycling shows a small decrease in the percentage of waste diverted over the planning period. The projection for the first year of the planning period is 81% decreasing one percent per year to 75% in 2028 and thereafter. This is a projection. The District will do everything it can to avoid a decrease.

## **3. Encouraging Participation**

In APPENDIX L, the District explains the programs and actions that will be implemented to reach target audiences with information and education directed to increase the amount of waste diverted from disposal by waste reduction and recycling, and to decrease the amount of unwanted materials that contaminate recycling collection programs.

The District will maintain all of the required programs: the website, the comprehensive resource guide, the inventory of available infrastructure, and a speaker/presenter. In addition, the District is planning a multi faceted campaign focusing on increasing participation in residential curbside and drop-off collection programs and in reducing contamination in the residential recycling stream.

The District's approach to commercial recycling will emphasize more direct, person to person, contact with business owners and managers with two primary purposes: motivation toward increase participation in recycling and to increasing the number and quality of responses to recycling surveys. The same approach will be used in reaching out to institutions and government offices.