

APPENDIX C POPULATION DATA

Instructions for Table C-1 - Population Adjustments and Total Reference Year Population (remove these instructions for the solid waste management plan)

Ohio law requires the entire population of a municipality or village located in more than one SWMD to be added to the SWMD containing the largest portion of the municipality's or village's population.

Information needed to complete Table C-1 is available on the Ohio Development Services Agency's (ODSA) website. To identify communities that are located in more than one county, use the ODAS document titled [Population Estimates by County, City, Village & Township](#).

Completing Table C-1

Go to the workbook, find the tab for "C-1", and follow the instruction below:

The worksheet is set up for a SWMD with 6 counties. For a SWMD with more than one county, use a separate table to make adjustments for each county.

Important - If the SWMD has less than 6 counties, leave unneeded tables blank – do not delete them. Also, do not delete any rows or columns from any table in Table C-1. Deleting tables, rows, or columns will invalidate embedded formulas.

To complete Table C-1:

1. Enter the names of the counties within the SWMD in the cells labeled "County A", "County B", etc." in the tables provided.
2. Enter the population of each county, before any adjustment is made, in the cell directly to the right of the cell labeled "Before Adjustment".
3. Enter community adjustments:
 - a. To add populations to a county:
 - i. Under the heading for "Additions, replace "Community 1" with the name of the first community to be added to that county, "Community 2" with the name of the second community to be added, etc.
 - ii. Enter the total population of each community.
 - iii. If there are more rows than are needed for adjustments, either leave unneeded rows blank or hide them. **DO NOT DELETE ROWS!**
 - iv. Add rows for more communities as needed.
 - b. To subtract populations from a county
 - i. Under the heading for "Subtractions", replace "Community 1" with the name of the first community to be subtracted from that county, "Community 2" with the name of the second

- community to be subtracted, etc.
- ii. Enter the total population of each community. Do not enter a negative number - an embedded formula in the cell for “After Adjustment” will automatically subtract the community’s population
- iii. If there are more rows than are needed for adjustments, either leave unneeded rows blank or hide them. **DO NOT DELETE ROWS.**
- iv. Add rows for more communities as needed.
- c. An embedded formula in the cell for “After Adjustment” will automatically calculate the population adjustment.

[NOTE: There is a summary table to the right of Table C-1. This table is used to populate other tables throughout the workbook. **Do not alter this table!**]

For Appendix C in the solid waste management plan, copy & paste only the tables that were completed.

If you hide rows, be sure not to hide the row for “After Adjustment”!

In the space reserved with “[replace with text explaining the entries in Table C-1]”, provide any text needed to explain how the quantities in Table C-1 were calculated.

Table C-1 Population Adjustments and Total Reference Year Population

	County A
Before Adjustment	
Additions	
Community 1	
Community 2	
Community 3	
Subtractions	
Community 1	
Community 2	
Community 3	
After Adjustment	

	County B
Before Adjustment	
Additions	
Community 1	
Community 2	
Community 3	
Subtractions	
Community 1	
Community 2	
Community 3	
After Adjustment	

	County C
Before Adjustment	
Additions	
Community 1	

	County D
Before Adjustment	
Additions	
Community 1	

Community 2	
Community 3	
Subtractions	
Community 1	
Community 2	
Community 3	
After Adjustment	

Community 2	
Community 3	
Subtractions	
Community 1	
Community 2	
Community 3	
After Adjustment	

	County E
Before Adjustment	
Additions	
Community 1	
Community 2	
Community 3	
Subtractions	
Community 1	
Community 2	
Community 3	
After Adjustment	

	County F
Before Adjustment	
Additions	
Community 1	
Community 2	
Community 3	
Subtractions	
Community 1	
Community 2	
Community 3	
After Adjustment	

Source(s) of Information:

Sample Calculations:

Assumptions:

[replace with text explaining the entries in Table C-1]

Instructions for Tables C-2 and C-3 – Population Projections (remove these instructions for the solid waste management plan)

Projecting County Population:

Default Method: The default (and easiest) way to project population is to use data published by the Ohio Development Services Agency (ODSA). ODSA provides projections for county populations in five-year increments. Go to [Development Services Agency Population Projections: County Totals](#) to access those projections.

To calculate populations for the years in-between the increments use a “straight line” projection. This involves dividing the difference in the populations for two consecutive five-year projections by five. This will give the annual increase or decrease in the number of people for the years between the five-year projections.

Below is an example of a straight-line calculation for a county:

Projected population in 2015 = 113,000

Projected population in 2020 = 120,000

$$\begin{aligned} \text{Annual population change} &= (120,000 - 113,000) \div 5 \\ &= 1,400 \text{ people} \end{aligned}$$

$$\begin{aligned} \text{Projected population in 2016} &= 2015 \text{ population} + 1,400 \\ &= 113,000 + 1,400 \\ &= 114,400 \end{aligned}$$

Under the default method, the populations of communities added to or subtracted from the SWMD’s population are assumed to remain constant at the reference year populations.

Other Methods: Most policy committees will use the default method to project population. The policy committee can choose to use a different methodology or different data. Doing either will require the policy committee to manually complete Table C-2.

Two examples when the policy committee may choose to use another method are:

- A SWMD has a community or a county with a population that is rapidly growing or shrinking. The policy committee chooses to take that into account for its projections. **[NOTE: The population analysis in Appendix H will help the policy committee identify any population anomalies it needs to incorporate into the population projections.]**
- The policy committee believes that data available from the local planning commission is more accurate and chooses to use that data instead of data from ODSA.

If a methodology other than the default method is used or if different data is used, then in the space reserved with [replace with text explaining the entries in Table C-2] explain the methodology, cite the sources of data, show all applicable sample calculations, and explain any assumptions used to develop the projections.

Completing Tables C-2 and C-3:

There are two tables for population projections. Table C-2 is the table that will be included in Appendix C of the solid waste management plan. Table C-3 is a working table and will not be included in Appendix C. Table C-3 will generate the data for Table C-2.

Complete Table C-3 before completing Table C-2.

Completing Table C-3

Go to the workbook, find the tab for “C-3”, and follow the instructions below:

Table C-3 is set up for a SWMD with six counties and to project population through 2040. Do not delete or hide any of the columns or rows in this table. If the SWMD has less than six counties, then leave unneeded columns blank.

Year – All years between 2010 and 2040 are provided.

County – All county names are automatically populated.

Projecting populations – Table C-3 is set up to project population using the default method described above.

To complete Table C-3 using the default method:

- a. Enter the 5-year increment populations provided by Ohio Development Services Agency in the cells highlighted in light-red for each county in the SWMD.
- b. Do not delete or hide any unused columns or rows in Table C-3.
- c. Embedded formulas will automatically calculate the populations for the years between the 5-year increments.
 - I. Population adjustments are automatically factored into all calculations.
 - II. The default method assumes that the population of each adjusted community will be the same as the reference year population throughout the planning period. The embedded formulas automatically use the reference year population adjustments from Table C-1 for each year of the planning period. This means that you will not project each community’s population.

To project population using a method other than the default method, you will need to do additional calculations and alter the populations generated by Table C-3. For example to account for rapid population growth in a community that is added to the SWMD’s

population, first calculate the annual population for that community. Next, subtract the automatic population adjustment (entered into Table C-1) for that community from the appropriate county population projections in Table C-3. Finally, add the new annual projected population for the community to the appropriate county population. Those are the populations for the county you will transfer to Table C-2.

[NOTE: Following Table C-3, there are cells for “Community Additions” and “Community Subtractions”. Formulas embedded into Table C-3 use these cells. The cells are protected to avoid invalidating the formulas. Do not attempt to change or delete the information in these cells.]

Completing Table C-2

Table C-2 is set up for six counties. **Do not alter Table C-2.** If the SWMD has less than six counties, then either leave unneeded columns blank or hide them.

If you hide columns, do not hide the “Total District Population” column!

Completing Table C-2 will involve copying and pasting information from Table C-3 or manually entering numbers into Table C-2.

The population for the reference year will automatically populate. For all other years, copy and paste (or manually enter) the populations from Table C-3 into Table C-2 for each county. Copy and paste (or manually enter) the populations for the years between the reference year and the first year of the planning period and the populations for the years in the planning period.

Total District Population – Formulas embedded in this column will automatically calculate the SWMD’s “Total District Population” for each year in the table.

In the space reserved with “[replace with text explaining the entries in Table C-2]”, provide any text needed to explain how the quantities in Table C-2 were calculated.

