## State Waste Composition - Estimate of the Current Composition of Discarded Municipal Waste Stream by Material Available for Recovery in Allegheny County Based on Southwest Region of Pennsylvania

|  |  | Material Categories | Tons Disposed | Mean Composition |
| :---: | :---: | :---: | :---: | :---: |
| Paper |  |  | 293,849 | 32.2\% |
|  | 1 | Newspaper | 51,104 | 5.6\% |
|  | 2 | Corrugated Cardboard | 69,356 | 7.6\% |
|  | 3 | Office | 28,290 | 3.1\% |
|  | 4 | Magazine/Glossy | 20,077 | 2.2\% |
|  | 5 | Polycoated/Aseptic Containers | 4,563 | 0.5\% |
|  | 6 | Mixed Paper | 42,891 | 4.7\% |
|  | 7 | Non-recyclable Paper | 77,569 | 8.5\% |
| Plastic |  |  | 101,296 | 11.1\% |
|  | 8 | \#1 PET Bottles | 10,038 | 1.1\% |
|  | 9 | \#2 HDPE Bottles | 8,213 | 0.9\% |
|  | 10 | \#3-\#7 Bottles | 2,738 | 0.3\% |
|  | 11 | Expanded Polystyrene | 6,388 | 0.7\% |
|  | 12 | Film Plastic | 42,891 | 4.7\% |
|  | 13 | Other Rigid Plastic | 31,028 | 3.4\% |
| Glass |  |  | 18,251 | 2.0\% |
|  | 14 | Clear Glass | 10,038 | 1.1\% |
|  | 15 | Green Glass | 1,825 | 0.2\% |
|  | 16 | Amber Glass | 3,650 | 0.4\% |
|  | 17 | Non-recyclable Glass | 2,738 | 0.3\% |
| Metals |  |  | 62,055 | 6.8\% |
|  | 18 | Steel Cans | 10,951 | 1.2\% |
|  | 19 | Aluminum Cans | 4,563 | 0.5\% |
|  | 20 | Other Ferrous | 35,590 | 3.9\% |
|  | 21 | Other Aluminum | 5,475 | 0.6\% |
|  | 22 | Other Non-Ferrous | 5,475 | 0.6\% |
| Organics |  |  | 313,925 | 34.4\% |
|  | 23 | Yard Waste - Grass | 28,290 | 3.1\% |
|  | 24 | Yard Waste - Other | 27,377 | 3.0\% |
|  | 25 | Wood - Unpainted | 43,804 | 4.8\% |
|  | 26 | Wood - Painted | 30,115 | 3.3\% |
|  | 27 | Food Waste | 98,558 | 10.8\% |
|  | 28 | Textiles | 38,328 | 4.2\% |
|  | 29 | Diapers | 27,377 | 3.0\% |
|  | 30 | Fines | 8,213 | 0.9\% |
|  | 31 | Other organics | 11,863 | 1.3\% |
| Inorganics |  |  | 122,285 | 13.4\% |
|  | 32 | Electronics | 14,601 | 1.6\% |
|  | 33 | Carpet | 15,514 | 1.7\% |
|  | 34 | Drywall | 9,126 | 1.0\% |
|  | 35 | Other C\&D | 40,153 | 4.4\% |
|  | 36 | HHW | 2,738 | 0.3\% |
|  | 37 | Other Inorganics | 38,328 | 4.2\% |
|  | 38 | Furniture | 1,825 | 0.2\% |
|  |  | Total | 912,574 | 100\% |

National Waste Composition - Estimate of the Current Composition of Discarded Municipal Waste Stream by Material Available for Recovery in Allegheny County Based on EPA National Study

|  | Material Categories | Tons Disposed | Mean Composition |
| :--- | :--- | ---: | ---: |
| Paper |  | $\mathbf{1 2 7 , 7 6 0}$ | $\mathbf{1 4 . 0 \%}$ |
| Plastic |  | $\mathbf{1 7 3 , 3 8 9}$ | $19.0 \%$ |
| Glass |  | $\mathbf{4 5 , 6 2 9}$ | $5.0 \%$ |
| Metals |  | $\mathbf{8 2 , 1 3 2}$ | $\mathbf{9 . 0 \%}$ |
| Organics |  | $\mathbf{4 4 7 , 1 6 1}$ | $\mathbf{4 9 . 0 \%}$ |
|  | Yard Trimmings | 73,006 | $8.0 \%$ |
|  | Wood | 73,006 | $8.0 \%$ |
|  | Food Waste | 200,766 | $22.0 \%$ |
|  | Rubber,leather and textiles | 100,383 | $11.0 \%$ |
| Inorganics |  | $\mathbf{3 6 , 5 0 3}$ | $4.0 \%$ |
|  |  | $\mathbf{9 1 2 , 5 7 4}$ | $100 \%$ |

## GHG Emissions Analysis -- Summary Report <br> Geg Emissions Analysis -- Summary Report Veston 1missions Waste Management Analysis for Barton $\&$ Loguidice Crreared by: Allegheny County Solid Waste Management Plan <br> 

| GHG Emissions trom Baseline Waste Management (MTCO2E): |  |  |  |  |  | 36,281 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Masoal |  | Tons Landllued | Tons Combusted | Tons Composed | Tons Anaerobically Digested | Tonal 1 Tro, E |
| Alumium Cans |  | ${ }_{7220}$ |  | NA | ${ }^{\mathrm{NA}}$ |  |
| Stael Cans |  | ${ }^{218,5}$ |  | ${ }^{\text {Na }}$ | NA |  |
|  |  | ${ }^{61.7448}$ |  | ${ }^{\mathrm{NA}}$ | NA |  |
|  |  | ${ }^{7}$ |  | ${ }^{\text {Na }}$ | ${ }^{\text {NA }}$ |  |
|  | NA | ${ }^{20.0}$ |  | ${ }^{\mathrm{NA}}$ | NA |  |
| Pt | $\cdots$ | ${ }_{4}^{60.4}$ |  | ${ }_{\text {NA }}$ | ${ }_{\text {NA }}$ |  |
| Ps | NA | ${ }^{26,9}$ |  | NA | NA |  |
| Cormasaed Comatioss |  | 56,1999 |  | ${ }_{\text {NA }}$ | $\stackrel{\mathrm{NA}}{\mathrm{NA}}$ | ${ }_{13,672}^{10}$ |
| Magaziosestird cass mal |  | 41.5 |  | Na | NA |  |
| aper |  | 1.7893 |  | Na | NA |  |
| Oince Paper |  | ${ }_{13,014}^{13}$ |  | ${ }^{\text {Na }}$ | ${ }^{\text {NA }}$ | 5.861 |
| aboors |  | ${ }^{3.6}$ |  | ${ }^{\mathrm{Na}}$ | NA |  |
| Ratammin | $\stackrel{\mathrm{NA}}{\mathrm{NA}}$ |  |  |  |  | ${ }_{\text {b }}^{6.568}$ |
|  | , | ${ }_{\text {S.9.933.9 }}$ | . | NA | NA | ${ }_{87}$ |
|  |  | ${ }^{17,5826}$ |  |  | ${ }^{\mathrm{Na}}$ |  |
| Mwoor Pasatics |  | 1.6478 |  | Na | NA |  |
| Mreed foorchabos |  | ${ }^{224,7443}$ |  | Na | ${ }^{\mathrm{Na}}$ | 448 |
| Food Wasio | ${ }^{\mathrm{NA}}$ | ${ }_{1,585}$ |  |  |  |  |
| Msee Oranacs | Na | 47,688 |  |  |  | , |
| Personal Compulas |  | ${ }^{2,3379}$ |  | ${ }^{\mathrm{NA}}$ | ${ }^{\mathrm{Na}}$ |  |
| Stios |  | ${ }_{\text {2.4,924 }}^{1.7206}$ | NA | ${ }_{\text {NA }}$ | ${ }_{\text {Na }}$ |  |
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Note: a negative value (i.e., a value in parenthesess indicates an emission reduction: a positive value
a) For explanation of methodology, see the EPA WARM Documentaio

Solid Waste Managemement and Greenhouse Gases: A Lite -Cycle Assessment of Emissions and Sinks

a) The GirG emissons resuls estimaledin wains nicate the turfie-cycle benents waste management


| Matatal | $\substack{\text { Tons Suuree } \\ \text { Reduced }}$ | Tons feocyled | Tons Landullod | Tons Comusised | Tons Composed | Tons Aneorobicaly Digsed | Toal Mrico, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aummum Cans |  | ${ }^{7220}$ |  |  | ${ }^{\mathrm{Na}}$ | ${ }^{\mathrm{NA}}$ |  |  |
| Stael Cans |  | ${ }^{21295}$ |  |  | ${ }^{\mathrm{Na}}$ | ${ }^{\mathrm{Na}}$ |  | (400) |
|  |  | $\frac{61.7448}{70.0}$ |  |  | $\frac{\mathrm{NA}}{\mathrm{NA}}$ | $\stackrel{\mathrm{NA}}{\mathrm{NA}}$ | (17.074) |  |
| Lope | 20.0 | ${ }_{\text {NA }}$ |  |  | ${ }^{\mathrm{NA}}$ | ${ }^{\mathrm{NA}}$ | ${ }^{186}$ | ${ }^{(186)}$ |
| ${ }_{\text {Pet }}^{\text {Pex }}$ | 4.3 | $\xrightarrow{\text { b0, }}$ | . |  | $\frac{\mathrm{NA}}{\mathrm{NA}}$ | $\frac{\mathrm{NA}}{\mathrm{NA}}$ | (107) |  |
| Ps | ${ }^{26.9}$ | NA |  | - | NA | NA | (67) | 168 |
| PVC Comgatec Contaness | 3.1 | ${ }_{\text {50,1999 }}$ |  |  | $\stackrel{\mathrm{NA}}{\mathrm{NA}}$ | $\frac{\mathrm{NA}}{\mathrm{NA}}$ | ${ }_{\text {[181, } 622}$ (6) | ${ }_{\text {(195294 }}$ |
| Nagazesestridcolass mal |  | 4.5 |  |  | NA | ${ }^{\mathrm{NA}}$ | (127) | (111) |
| Saper |  | 1.8893 |  |  | NA | NA |  |  |
|  |  | ${ }_{\text {13,04. }}^{36}$ |  |  | ${ }_{\text {NA }}$ | , | (37221) |  |
| Varat Timinge |  | ${ }^{\mathrm{NA}}$ |  |  | ${ }_{4}^{47.658,8}$ |  | 16.970 | 1.598 |
| 隹 | Na | ${ }_{6.939}{ }^{\text {Na }}$ |  |  | ${ }_{\text {Na }}$ | NA | ${ }^{(1,988)}$ |  |
| Mreod heals | . | ${ }_{17,5826}$ | $\cdots$ | - | NA | NA | [76.36] | ${ }^{(20,6,52}$ |
| Mreed Pastes |  | ${ }_{\text {L }}^{1,6778}$ |  | , | ${ }^{\mathrm{Na}}$ | ${ }_{\text {NA }}$ |  |  |
| M, Mrach Paycrabes | NA | ${ }^{224,743}$ |  |  | NA | Na | (634,887) | 644,35 |
| \%ersose | ${ }^{\text {NA }}$ | ${ }_{\text {NA }}$ |  |  | ${ }_{4}^{47.5888}$ |  | ${ }^{182065}$ | ${ }^{(1,7,322}$ |
| Pesonal Compues |  | ${ }_{2}^{2,3379}$ |  |  | NA | NA | (5.584) | (59,92) |
| Sorse | NA | ${ }_{\substack{2.9,124 \\ 1.720 .6}}$ |  | NA | ${ }_{\text {Na }}^{\mathrm{Na}}$ | $\frac{\mathrm{Na}}{\mathrm{NA}}$ | $\xrightarrow[(168)]{(667)}$ | ${ }_{(683)}^{(682)}$ |
| Asphat Conceate |  | ${ }^{20.270 .9}$ |  | NA | NA | NA | (1.648) | ${ }^{12.059}$ |
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Total Change in GHG Emissions ( $\mathrm{MTCO}_{2} \mathrm{E}$ )
(1,047,84)

| This is equivalent to.. annual |  |
| :---: | :---: |
| rom | 220,586 Passenger Velicics |
| eving | 117,900,808 Gallons of Gasoline |
| Consening | 43,657,687 Cylinders of Propane Used for Home Barbeques |
| Conserving | 5,618 Railway Cars of Coal |
|  | $\mathbf{0 . 0 6 0 2 3} \%$ Annual $\mathrm{CO}_{2}$ emissions from the U.S. transportation sector |

## Energy Analysis -- Summary Report

 Versison 4 A.GHa
Prissions Waste Management Analysis for Barton \& Loguidice
CHeg Emissions Waste Management Analysis for Barto
Prepard by: Allegney County Solid Waste Managem
Project Period for this Analysis: $01 / 01 / 16$ to $12 / 11 / 16$
Project Period for this Analysis: $01 / 01 / 16$ to $12 / 31 / 1 /$
Note: It y ou wish to suve these esesuls enamen this



Note: a negative value (i.e., a value in parentheses) indicates a reduction in energy consumption; a positive value indicates an
increase.
a) For explanation of methodology, see the EPA WARM Documentation:

Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks

- available on the Internet at http://epa.gov/epawaste/conserve/tools/warm/SWMGHGrepor.thtml
b) Emissions estimates srovided by this model are intended to support voluntary GHG measurement
and reporting intitiaitivs.

Energy Use from Alternative Waste Management Scenario (million BTU):

| Materal | Tons Source Reduced | Tons Recycled | Tons Landtlled | ${ }_{\text {Tombsted }} \begin{gathered}\text { Toms }\end{gathered}$ | Tons Composted | Tons Anaerobically Digested | Total Million BTU |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aluminum Cans |  | 7920 |  |  | NA | NA | (12,989 |
| Steel Cans | . | 218.5 |  |  | NA |  |  |
| Giass | . | 61.744 .8 | . | . | Na | NA |  |
| HDPE |  | 0.0 | . | . | NA | NA |  |
| LDPE | 20.0 | NA | . | - | NA | Na |  |
| PET |  | 60.1 |  |  | NA | NA |  |
| PP | 4.3 | NA |  | . | NA | NA |  |
| Ps | 26.9 | Na |  |  | va | va |  |
| PvC | 3.1 | NA |  |  | NA | Na |  |
| Corrugated Containers |  | 58,199.9 |  |  | NA | NA | (877,330) |
| Magazinesthird.class mal | - | 4.5 |  |  | NA | NA | (28) |
| Newspaper |  | ${ }^{1,789.3}$ |  |  | NA | Na | [29,499) |
| Office Paper | . | ${ }^{13,014.5}$ |  |  | NA | NA | (131,200) |
| Phonebooks |  | 3.6 |  |  | NA | NA |  |
| Yard Timmings | NA | NA |  |  | 8.8 |  |  |
| aches | NA | NA |  |  |  |  |  |
| Mixed Paper (general) |  | 6.933.9 |  |  | NA | NA | (141,008) |
| Mxed Meals |  | ${ }^{17,582.6}$ | - |  | NA | NA | ${ }^{1,160,95}$ |
| Mreed Plasics |  | 1,647.8 |  |  | NA | NA | (63,96) |
| Mxed Reocylables | NA | 224,734.3 |  |  | NA | NA | (3,331,491 |
| Food Waste |  | NA |  |  | 1.852.6 |  | 1.082 |
| Mxxed Organics | NA | NA |  | . | $47,688.8$ |  |  |
| Personal Computers |  | 2,387.9 |  |  | NA | NA | (68,160) |
|  | NA | ${ }^{24.912 .4}$ |  | NA | NA |  |  |
| Tires |  | +1,720.6 |  |  | NA | ${ }^{\mathrm{NA}}$ |  |
| Asphat Concrete |  | 20.270 .9 |  | NA | NA | NA | (24,742) |
|  |  |  |  |  |  |  |  |
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Total Change in Energy Use (million BTU):

|  |  |
| :--- | :---: |
| This is equivalent to... |  |
| Consenving | 52,564 |
| Housenolds' Annual Energy Consumption |  |
| Conserving | $\mathbf{1 , 0 4 0 , 4 4 1}$ Barels of Oil |
| Conserving | $48,656,283$ |



## GHG Emissions Analysis -- Summary Repor

GHG Emissions Waste Management Analysis for Barton \& Loguidice



| GHG Emissions from | seline Waste | Management (N) | TCE): |  |  | , 895 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Materal | Tons Recycled | Tons Landifled | ${ }_{\text {combusted }}^{\text {Tons }}$ | Tons Composted | ${ }^{\text {Tons Anearobically }}$ Digested | Total MTCE |
| Auminum Cans |  | ${ }^{7920}$ |  | NA | ${ }^{\mathrm{NA}}$ |  |
| Steel Cans |  |  |  | NA |  |  |
| St |  | 61.7 |  | NA | NA | ${ }^{341}$ |
| HOPE | NA | $\frac{70.0}{20}$ |  | ${ }^{\text {NA }}$ | NA |  |
| LOPE | NA | ${ }^{20.0}$ |  | NA | NA |  |
|  | ${ }^{\text {NA }}$ | ${ }_{6} 6$ |  | NA | A |  |
| Ps |  |  |  |  |  |  |
| PvC | ${ }^{\mathrm{NA}}$ | ${ }_{3.1}^{20.1}$ | , | ${ }^{\mathrm{NA}}$ | ${ }^{\mathrm{NA}}$ |  |
| aled Conlaners |  | 58.199.9 |  | NA | NA | 3.729 |
| nesethrid class mal |  |  |  | NA | NA |  |
| $\frac{\text { Neespaper }}{\text { Office }}$ |  | ${ }^{1.7893}{ }^{130145}$ |  | $\frac{\mathrm{NA}}{\mathrm{NA}}$ | $\frac{\mathrm{NA}}{\mathrm{NA}}$ |  |
| Office Paper |  |  |  | ${ }^{\text {NA }}$ | ${ }_{\text {NA }}$ | 326 |
| Phonebooks | NA | ${ }^{477.638 .8}$ |  |  |  | ${ }_{(2,336)}$ |
| ches | NA | ${ }^{13,5000}$ |  |  |  | ${ }^{(1,883}$ |
| MMxed Paper (general) |  | ${ }_{6}^{6,933.9}$ | . | ${ }^{\mathrm{NA}}$ | NA |  |
| M, Mxed Mealas |  | ${ }_{17,526}^{1,648}$ |  | VA | NA |  |
| Recricables |  | ${ }^{224,734.3}$ | . | ${ }^{\text {NA }}$ | NA | 2.577 |
| Waste | NA |  |  |  |  |  |
| Mreed Organics | NA | 47.638 |  |  |  | 2.65 |
| Pesonal Compueirs |  | ${ }^{2,337.9}$ | , | ${ }^{\mathrm{NA}}$ | ${ }^{\mathrm{NA}}$ |  |
| Tires |  | 1,720,6 |  | NA | NA | 10 |
| Asphal Conceete |  | 20.270 .9 | NA | NA | NA | 112 |
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Note. a negative value (i.e., a value in parentheses) indicates an emission reduction: a positive value indicates an emission
a) For explanation of methodology, see the EPA WARM Documentation:

Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks
-available on the Internet at http://epa.gov/epawaste/conserve/tools/warm/SWMGHGreport.htm
b) Emissions estimates provided by this model are intended to support voluntary $\mathbf{G H G}$ measurement and reporting intititives.
(i) The GHG emissions results estimated in WARM indicate the full life-cycle benefitis waste management atermatives. Due to the Iming of the GHG emissions riom the waste management pathways, (e.9., avoided landtiling and increased recycling), the actual all in one year, but ratheret through time.

(285,759)

| This is equivalent to... Removing annual emissions from | 220,586 Passenger Vehicles |
| :---: | :---: |
| Conserving | 117,900,808 Gallons of Gasoline |
| Conserving | 43,657,687 Cylinders of Propane Used for Home |
| Conserving | 5,618 Railway Cars of Coal |
|  | $\mathbf{0 . 0 6 0 2 3} \%$ Annual $\mathrm{CO}_{2}$ emissions from the U.S. transportation sector <br> $0.05180 \%$ Annual CO2 emissions from the U.S. electricity sector |

