compost distribution

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: Index of county ()  
 : Index of facilities ()

Intake for each facility is sum of the proportion taken in from for

Output of each facility is equal to intake converted into compost

Total compost applied in each county is the sum of the proporion of output from for

subject to:

where

= Proportion of to send to   
 = Proportion of facility output to send to working land  
 = Distance to haul to facility ( ) from county () (km)  
 = Distance from to working land (km)  
 = Waste available in county   
 = Intake capacity of facility   
 = Amount of output county can take in (based on amount of land)

and

= Sequestration potential compost applied in county (gCO2/ton?)  
 = Conversion factor of waste into compost (%) (= .58)  
 = Emission factor for waste left in county () (landfill!! )  
 = Emission factor for compost stranded at facility () (0?)  
 = Transportation emission factor () (separate??) (101 g/ton-mi, CARB)  
 = Emission factor for compost production () (Delonge??)  
 = Cost to haul away from facility to land ()  
 = Cost to haul to facility from county ()  
 = Cost to apply compost to fields () ($8.87/cubic yard, Marin RCD) ($0.5 / sq ft????, EPA ) ($4/ton)  
<https://www.epa.gov/sites/production/files/2015-11/documents/highwy3a.pdf>