

# CLOSING THE LOOP

## The SOUL Center: A Unique Zero-Waste Compost-to-Table Training Facility



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# The

- Sustainable Opportunities for Universal Learning was inspired by this hollow tree. Found along the Underground Railroad in Sandy Spring, MD, the Quakers left food in its hollow for the runaway slaves.



We honor our region's legacy of helping people achieve freedom through food sovereignty. We teach an understanding of the interconnectedness and reciprocity inherent in a truly sustainable food system. One that helps community members connect to one another and our earth, and in the process of growing food, helps grow our SOULs.

Our *Culinerati* are a universal community, a diverse multi-generational organization, where young and old people from all walks of life engage in hands-on opportunities where they can own their knowledge, become lifelong learners and connectors, spread the word and be a part of growing a movement, not apart from it.

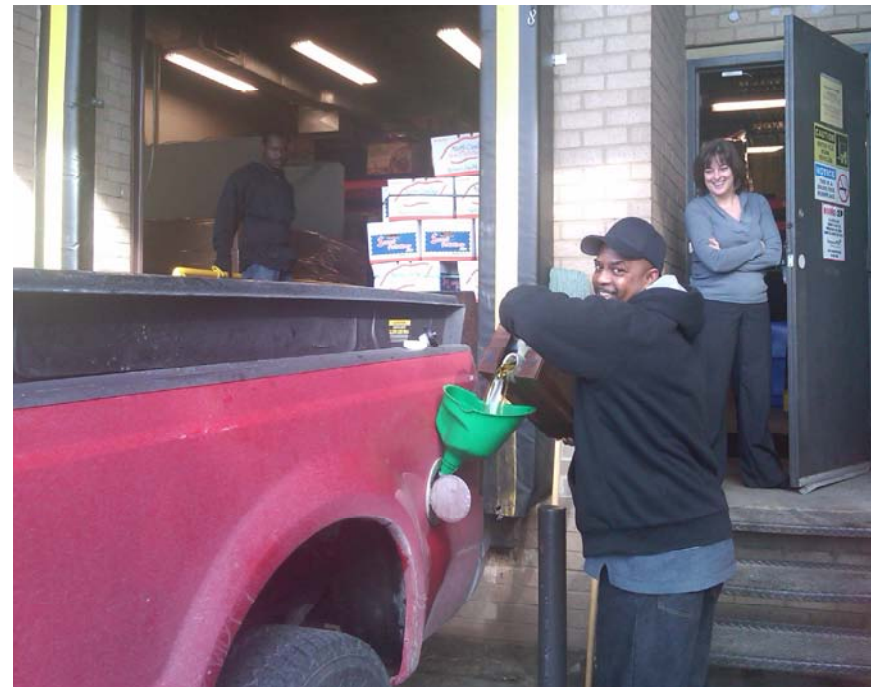


# Approaching Zero-Waste



Our model is premised on the four R's: Reduce, Reuse, Recycle, & Rot.


Fueled  
with  
Waste  
Vegetable Oil

A stylized illustration of a sunflower with a yellow face and green leaves. A green gas pump nozzle is attached to the stem of the flower, with a drop of oil falling from its tip.

# growing SOUL


(Sustainable Opportunities for Universal Learning)

is a non-profit sustainability education center, founded in 2009. Our programs are in collaboration with sustainable agriculture legends:

 Will Allen of Growing Power, MacArthur Genius Fellow & Rockville Native



Matt Rales of Polyface Farms, featured in *The Omnivore's Dilemma* & *Food Inc.*

 Jane Goodall of Roots & Shoots, global environmentalist

Rob Jones, founder of Crop Mobs, *Culinerati* inspiration

# The growing Dilemma & Solution

**SOLU**

## The Dilemma:

Right now we have a broken, unsustainable linear food chain: production ~ processing ~ distribution ~ consumption ~ landfill fueled by an expensive, polluting, limited oil supply.



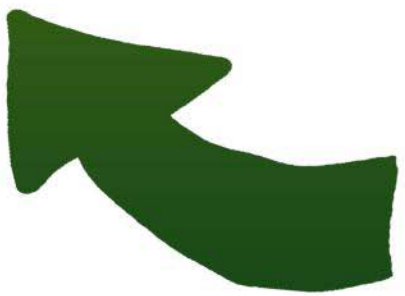
## The Solution:

Composting, recycling our vital nutrients, allows us to develop a truly sustainable food system by arc-welding a linear chain into into a zero-waste food cycle.


Using renewable fuel to power production, collection, processing, distribution and recycling makes this low-carbon footprint model affordable and closes the loop.





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# Our Closing the Loop Model

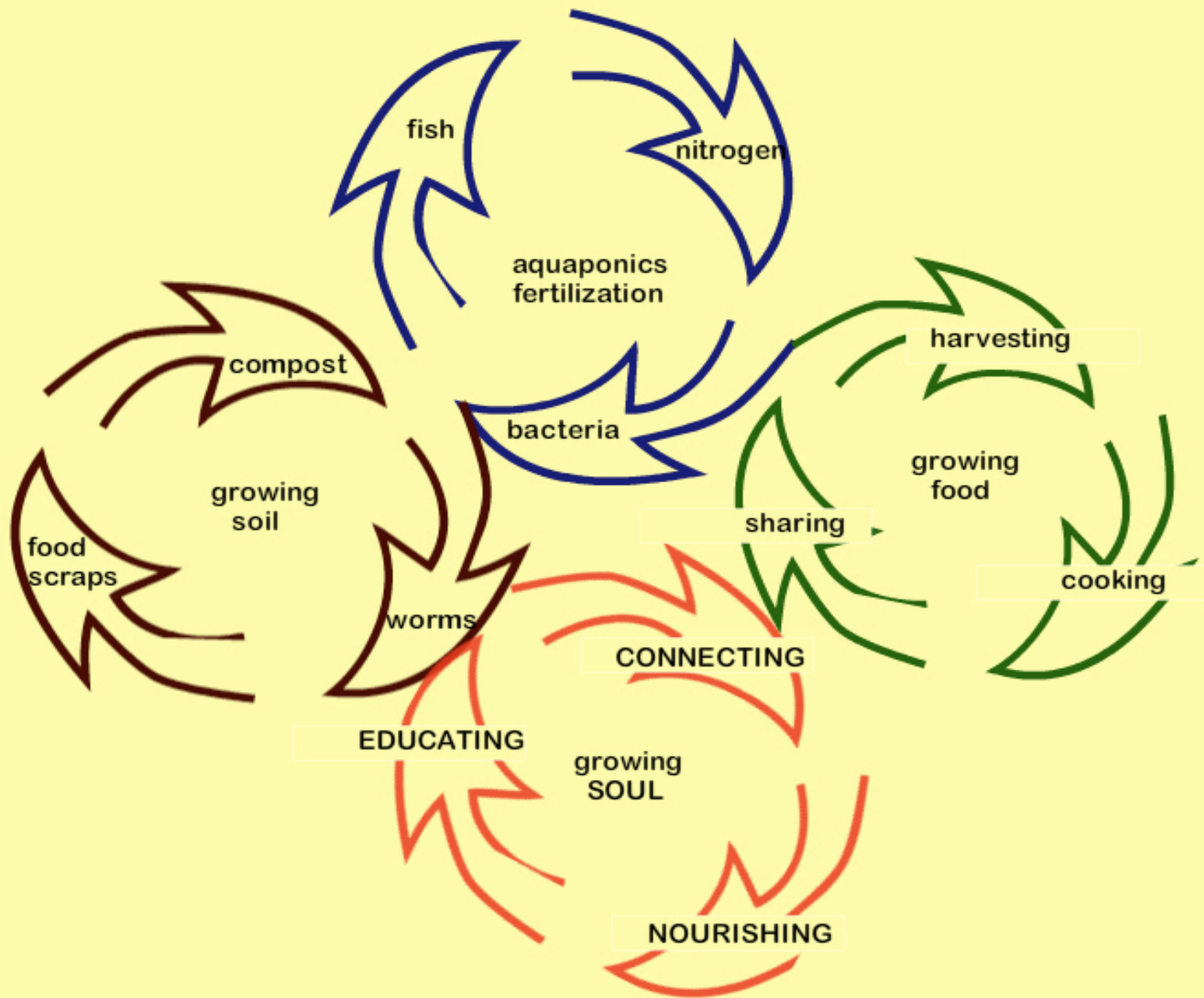
 We collect compostables from local restaurants, farmers markets and the food bank as well as from the community at their homes. We also collect waste vegetable oil from the tortilla fryers at Chipotle Mexican Grill that we dewater and filter to fuel our diesel vehicles.

 We bring some compostables to local farms to feed their animals. The rest we bring to a Will Allen designed site in Prince George's where they are mixed with yard waste to be turned into *Soil with SOUL* compost.

 We connect farms, schools and community gardens by bringing them our *Soil with SOUL* and teaching them to grow, harvest and prepare food, a portion of which goes to the local food bank.

 In our zero-waste model, all parts of the produce are used to make pestos, salsa, kim chi or stocks. Any leftovers are composted in vermicompost bins on site.






 We distribute the whole produce and locally processed food back to farmers markets, restaurants and the food bank. What isn't sold or





# The growing SOUL Vision






-  **Sustainable food system**
-  **Human interdependence and reciprocity**
-  **Zero-waste food cycle**
-  **Local food production, preparation, & preservation**
-  **Renewable energies**

# The growing SOUL Mission

-  **Connect** people and communities through a localized food system that values interdependence and reciprocity.
-  **Educate** community members about growing, preparing and composting food in a sustainable manner.
-  **Nourish** communities by improving access to and knowledge of nutrient-rich food production and preparation.
-  **Empower** community members to be engaged citizens that promote social equity, environmental regeneration, and economic viability within our food system.



# Connects:

-  by closing the food system loop with vermicomposting
-  local food producers with local markets
-  community members by engaging them in all parts of the food system: production, distribution, consumption and recycling



# growing SOUL Educates:



**Weighing in at Piney Branch Elementary's Trash Free Lunch Day**



**Making vermicomposting bins At Sandy Spring Friends School**



**Gardening class at Rockville Whole Foods**



**Preparing to grow sunflower shoots at Cresthaven Elementary School**



# Sample Curriculum:



**Where does your food come from? How far has it traveled? At what cost?**



***Soil with SOUL* : Why Compost? The Wonder of Worms**



**Aquaponics: The Ultimate Closed-Loop Sustainable Growing System**



**Planting & Caring for a Container Garden – flat of shoots, vertical pots, & raised beds**



**Make a Local Food Product: Grow a Pickle, Salsa, Kim Chi, Pesto or Sauce Garden**



**Color your Plate with a Rainbow of Seasonal Foods**



**Food Preservation: Pickling, Fermenting & Canning**



**Zero-Waste Food Preparation: Pestos & Sauces Made from Just About Anything**



# growing SOUL Educates:



**Making kim chi from home grown greens, garlic & ginger**



**Powered on gravity filtered tortilla chip oil, we make it affordable and sustainable**



**Our Sustainable Food System Loop fits into a parking space**



**Vermicomposting the scraps**

# growing SOUL Nourishes:

 The planet by returning vital nutrients to its soils

 People through teaching the production of nutrient-rich foods

 The local economy by teaching green job skills & bringing in students from all over



# growing SOUL Empowers:



Students of all ages and abilities by providing quality service learning opportunities. Our *Cult* go on to peer mentor other community members





# Unique Features of Our Model



Engaging community to arc-weld the currently linear food chain into a sustainable food system



Enabling municipal composting with regular yard waste pickup, and triaging leftover restaurant food first to people, then animals, then soil building



Developing a community commercial kitchen and farmers market enterprise to bring in the community, creating a system of reciprocity to grow local foods that get processed and sold locally to boost the local community economy



Bringing our show on the road with a mobile farmers market powered by renewable fuel from our composting partner, Chipotle Mexican Grill



Working with a multi-generational and diverse socio-economic volunteer corp to build and foster community while encourage the recording of our elder's food wisdom in *The Culinerati Files* which will be open source



Creating a Regional Food Policy Council to make sure there is a legal foundation that supports and encourages it, that includes the food bank

# How Our Composting Began



Collecting from Ricciuti's, Roots, Vie De France & Starbucks in a borrowed pickup, dumping at Sandy Spring Friends School where it is mixed daily with woodchips using a bobcat.



Coffee grounds form the vermicomposting pile

For the Pre-K and Kindergarten science

# Expanding Composting After a Season

Visiting Manna on Earth Day 2010, I am asked if we can compost bread. They get over 1000 Pounds each week that can not be given out in emergency food boxes. We shake hands and enter a partnership with us composting and educating their clientele about the food cycle and preparing simple meals using their food boxes.



I connect with Matt Rales at Grassential who says “Bring it on!” He teaches me the “nesting technique” he learned while working at Polyface Farms. After 1 month, we have a 6’ x 8’ x 5’ lasagna of compostables and woodchips Matt will use that summer to amend the soils at Grassential

# Polyface Farm “compost nest” technique at Button Farm



Build a raised lip of woodchips 6-10”



Fill with compostables



Cover with coffee grounds to keep smells down



Cover with another 6-10” of woodchips to keep critters out



# Worm Bank Moat:



Note the rich dark pile of finished community compost in the background.

We grow worms in an insulating moat around our dome. Worms make rich fertilizer, called castings, for our crops. Sponsored by community partners, Mayorga Coffee, French Confection, Vie de France, Roots Organic Market and Chipotle Mexican Grill, the worm bank is lined with burlap, layered with coffee chaff, expired organic produce and covered

# Vermicomposting



We demonstrate worm bins in buckets using newspaper as bedding.



We grow soldier fly larvae (90% protein) to feed the fish in our aquaponics growing system.



On Earth Day, our Culinerati Team hand harvests the worms and then sift the castings from the compost and tailings to use in sprout production.



# Community Partners:



*Manna Food Center*



*Chipotle Mexican Grill*



*Ricciuti's Restaurant*



*Capitol City Brewery*



*Roots Market*












*Whole Foods*



# Community Partners:

We currently collect over 4000 gallons , nearly 10 tons, of compostables, coffee grounds, coffee chaff and burlap WEEKLY from the following local establishments:

-  Ricciuti's Restaurant (180 gallons pre- and post-consumer food scraps)
-  Roots Market (300 gallons organic but expired food)
-  Chipotle Mexican Grill (4 locations , 750 gallons pre-consumer food scraps per site)
-  Manna Food Center, our local food bank (800 gallons expired food and 1,000 pounds stale bread)
-  Bethesda Green (20 gallons of food scraps and coffee grounds)
-  Holy Cross Senior Source (6 gallons coffee grounds)
-  Vie de France (10 gallons coffee grounds)
-  Starbucks (28 gallons coffee grounds)
-  Mayorga Coffee Roasters (300 gallons coffee chaff, 6 gallons coffee grounds, 100 burlap bags)

growingSOUL begins curbside collection for the City of Takoma Park in 2012. Over 3000 households will be able to add their pre-consumer plant-based compostables to their small yard waste for weekly municipal collection. We anticipate another 15,000 gallons of compostables weekly. Our capacity allows us to turnover a finished *Soil with SOUL* product every 3 months. Based on reciprocity, we will share our soil with all community partners and those who grow food for our local food banks.

## OTHER COMMUNITY PARTNERS:

-  BumBoosa Bamboo Products Market
-  Fresh Give
-  Grassential
-  Interfaith Works
-  Montgomery Countryside Alliance
-  Nourishing Possibilities
-  Nature
-  Olney Farm & Artist
-  Olney Kehila
-  Project Change
-  Sandy Spring Civic Association
-  Silver Spring Green
-  Button Farm Living History Center
-  CropJobs
-  Crossroads



# Our Future Fuels: Vertical Wind Turbi & A National WVO Co-Op through Chipotle





&



Are Community Partners

Through the Smart Sacks Program, our students reach out to their peers as they pack weekend food for those most at-risk for hunger.

This is a free, Community Service Accredited program.



Closing the loop on hunger (clockwise from left):  
2 weeks of food loaded into vehicle;  
carrying the food to the "sorting and distribution center";  
unloading the food into a sorted loop; rotating through the loop, stuffing weekend food; repacking the car to deliver the Smart Sacks.









# Leadership Team



**growingSOUL is supported by a well rounded team including a farmer, beekeeper, master gardener, master composter, soil scientist, nutritionist, dietician, community organizer, LEED certified builder, Montessori teacher and other local educators specializing in the field of sustainability.**



# The Project Summary

-  growingSOUL will establish a unique sustainability training center to facilitate trainings for internationally acclaimed Will Allen of Growing Power, a national organization and land trust that helps groups create local Food Community Systems.
-  The goal is to provide our community with regular access to affordable local produce, hands-on agricultural knowledge, and a greater sense of community by working together to grow food for ourselves and those in need. In addition to on-farm training in sustainable food production, a website and monthly seminar series will provide off-farm training to all.
-  growingSOUL aims to get the community actively participating toward the common goal of high quality, affordable, local, sustainable food production and consumption while giving back to others and reaching out the the community-at-large.
-  At growingSOUL we create the soil in which good food and strong communities grow and thrive.