

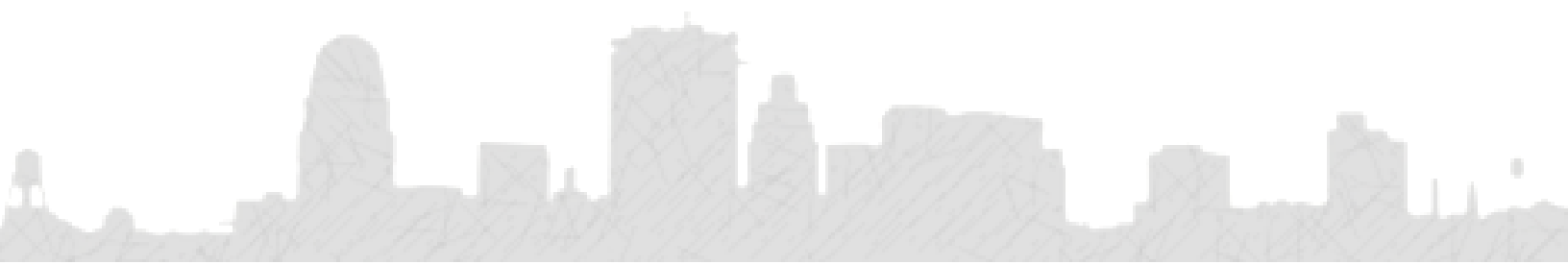


The Institute for Regenerative Design & Innovation

Miracle Grounds Network

Co-Building a Community Resiliency Platform from
the Soil Up

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Executive Summary

Our vision is to engage local, regional and national stakeholders in co-building/creating a community resiliency platform/model from the soil-up. With this goal in mind, we believe that entire sustainable agriculture supply-chain will be activated through regenerative design and innovation. An agriculture supply chain or food system refers to the processes that describe how food from a farm ends up on our tables such as the food cycle as it relates to how food waste is connected to compost and soil. The processes include production, processing, distribution, consumption and most importantly disrupting the linear disposal process with a cyclical process. A core component of this regenerative strategy is the diverse participation in the development of a Food Innovation District that will stimulate vital economic growth and improve social conditions including health, wealth, and wellbeing. Food Innovation Districts are central to the proposed Community Resiliency Platform – designed to facilitate the emergence of a restoration economy in Winston Salem. The Restoration Economy is a blend of business, science, and economics that details exciting new business and investment opportunities that not only sustain but regenerate various economic supply-chains beginning with food. The creation of innovation districts is a recent trend in urban planning that has emerged as a new model to stimulate economic growth in cities across the globe. Building from this successful strategy, Crossnore’s Miracle Grounds Network is linking Winston Salem’s innovation district strategies to regenerative development models found in both a Circular and Bio-Economy models that in the end build restorative linkages between rural and urban settings. This briefing provides a broad overview of the Institute for Regenerative Design & Innovation’s first working model of a Trauma Resiliency Platform called the Miracle Grounds Network and will serve as a launch pad for the broader Food Innovation District vision.



Community Resiliency Platform

Featured in the winter 2018 Pain Pathways magazine under their “Integrative Therapies” section entitled “Story of the Plate,” our established Community Resiliency Platform was succinctly described as an “achievable goal” co-designed to nourish “better health for the individual and the community at large... one bite at a time.” In the article, Crossnore School and Children's Home Chief Clinical Officer Meribeth Robinson provides deeper insights into the platform’s design when describing a new lens for understanding Adverse Childhood Experiences (ACEs) called the Pair of ACEs model that uses a deeply penetrating tree/root analogy: connecting individual trauma (tree) to the larger community (roots). She states:

“Trauma is about broken relationships, connection is broken with the body/self, family, friends, community, nature and spirit. Resilience is the ability to bounce back; however, this implies this is up to the family and child to bounce back. In collaboration with Miracle Grounds Farm at Crossnore School and Children’s Home as the Anchor Farm, we are literally creating soil to build resilience for the children and families on the campus and the larger community...”

The proposed Community Resiliency Platform or simply “Platform” is simple: to heal trauma by reconnecting individuals (trees) and the larger Winston Salem community (roots) back to the soil through what we call a Soul-to-Soil relational framework where “the only difference between Soul and Soil is U and I.” To serve as an example, a 2015 study entitled “Veteran to Farmer Programs: An Emerging Nature-Based Programming Trend” found that veterans who suffer from PTSD have benefited substantially by re-establishing connections to both soil and food production within farm and garden settings. Moreover, visionary, design practitioner and founder of MEDstudio Peter Lloyd Jones stated in a beautifully cogent video (by Parallax Collaboration) about building health into urban design that:

“It turns out that actually in dirt there are bacterium that we are constantly inhaling... If we put our hands in them, they cover our hands; we breath it in. This bacterium turn out to have positive effects on our serotonin system. So they actually make us feel good! So we have evolved and coevolved with dirt to have our hands in it, to nurture it, to feel good about being in it.”

In short, all humans have co-evolved with the soil in such a way that once we become disconnected from this essential Life-Giving Platform, we in turn form deep disconnections with nature and between each other. Our proposed trauma resiliency model builds from this fundamental disconnection that we all share regardless of race, gender, class, ability and many other points of social differences, that is, our one common denominator is a systemic disconnection from the soil and the life it generates through various regenerative cycles! It’s from this Life Giving platform that we hope to co-build a regional and national model for Community Resiliency.

Pilot Project in Brief

We know that wellbeing, mental health, substance abuse and trauma informed care are all key areas that should be addressed to enhance the care of those whom have little to no access to both employment as well as emerging entrepreneurship opportunities. In short, socio-economic viability is inextricably interconnected with increasing personal health and community resiliency. With the explicit goal of develop a novel Community Resiliency Platform for vulnerable populations, this briefing proposes the launch of a trauma informed curriculum that explores the potential for co-building community resiliency beginning with a novel workforce development program within the food sector. This proposed program for establishing an inclusive Food Innovation District (see appendix A) model for Forsyth County is a part of a broader, community-wide project called the Miracle Grounds Network (“MGN”). MGN locates economic viability at the intersection of education, health and food through a unique Community Resiliency platform that integrates Curriculum Design, Health Innovation and Regenerative Entrepreneurship. The proposed platform seeks to develop a holistic approach to treating vulnerable populations emotionally, physically, mentally and spiritually through a unique Soul-to-Soil curriculum that links them and their support networks to a deeply relational platform rooted in building healthy relationships with both Living-Soils and Bio-Nutrient Food (see Appendix B). As relationships with soil and food are enriched overtime, a natural parallel process occurs as relationships are forming with each other within these vulnerable populations. We also know that the most viable solutions to any challenge will surface within the communities living with those challenges. Thus, we understand that changing complex systems, like local support networks, require many different people and perspectives and will necessitate creativity and innovation. This initiative will begin with both a participatory design process for launching a city-wide Action Plan (Appendix A & B) along with trauma trainings for MGN’s support networks for both individuals and the communities they live in.



Individual Network

- City with Dwellings
- Project Re-Entry
- Crossnore’s Youth in Transition
- Providence Culinary Training
- Caminos Bakery
- Village Juice Company
- Sweet Potatoes
- Bobby Boy Bakery
- Venture Cafe



Community Network

- Neighbors for Better Neighborhoods
- Minister’s Conference of Winston Salem and Vicinity
- Faith Health
- Baptist Health Mobile Clinic
- HOPE WS
- YWCA
- Love Out Loud
- 2nd Harvest Food Bank

The primary focus is to launch a vibrant community resiliency platform through the established Miracle Grounds Network with a specific focus on applying the "pair of ACEs" model across the city. Those techniques will be fostered in the development of a trauma informed curriculum for adults in the workforce development program with a specific focus on applying the "pair of ACEs" model across the city. To understand the proposed platform and how it relates to the pair of ACEs model, lets follow an individual (“Johnny”) from prison to entrepreneurship with a proposed model (potential). Essentially moving from an embodied and embedded trauma informed curriculum that is infused within MGN, upon release Johnny will have a rich community network rooted in resiliency (e.g., Health Innovation) and hope rooted the emerging Regenerative Entrepreneurship pipeline.

While serving his sentence, Johnny enters Project Reentry and decides to commit to entering Providence Culinary Training that is co-designed to serve as a resilient support network where all partners have reduced siloes and work synergistically within an eco-system deeply rooted in trauma resiliency. Johnny is allowed to complete his training through work release along with obtaining credit hours that can be completed during his time working in correctional facility's kitchen. Upon release, Johnny enters the larger support network that provides wrap around services for housing, health, employment and many others with a keen focus on building individual (tree) and community resiliency (roots). As a part of Johnny's training, he begins to understand the larger supply-chain related to restaurants during the farm-to-table component of the curriculum and is encouraged to use his culinary training as a stepping stone for exploring other agriculture based industries (supply-chain management, food quality management, etc.) and begins to explore potentially taking other classes at Forsyth tech that will equip him for his future aspirations. While working at Village Juice Company, he quickly moves up the chain and becomes an assistant manager. Noticing his progress, several team members from Providence Food Hub inquires if he is interested in co-building a local cooperative for producing local manufactured cooking oil for regional restaurants. Johnny enthusiastically accepts and enters the emerging regenerative entrepreneurship pipeline as a tentative member of emerging Oil-Coop.

>>> Flow of Regenerative Entrepreneurship Pipeline >>>



APPENDIX A

BIOREGIONAL DEVELOPMENT

As a fundamental characteristic of regenerative development as well as supplementing limitations found within community development models centered around sustainability, bioregional development, according to Michael Vincent McGinni, “has emerged as the new framework to study the complex relationships between human communities, government institutions and the natural world, and through which to plan and implement environmental policy. Bioregionalists believe that as members of distinct communities, human beings cannot avoid interacting with and being affected by their specific location, place and bioregion: “despite modern technology, we are not insulated from nature.” In short, it is our belief that a bioregional approach adds additional structure to the proposed Community Resiliency platform by prompting development practitioners to establish concrete linkages between traditional urban centric models of development and their rural counterpart with a specific emphasis upon the importance of the latter - essentially establishing necessary rural-urban linkages. These linkages are an essential ingredient for building local *circular-assets*.

Beginning with Forsyth County’s Miracle Grounds Network testbed for the proposed Community Resiliency platform, this action plan outlines a bioregional approach to regenerative development across North Carolina leveraging food councils, health networks and emerging innovation districts across the state. The regenerative approach proposed by this action plan seeks not only to reverse the degeneration of ecological systems, but also to co-design human systems that can co-evolve with these dynamic ecologies - evolve in a way that generates mutual benefits and greater overall expression of life and resiliency.¹ The emerging field of regenerative design and innovation, which draws inspiration from the self-healing and self-organizing capacities of natural living systems, is increasingly seen as a source for achieving this end. It is our hope that the proposed bioregional model helps to redefine the way food councils, and the communities they are situated within, are thinking about and co-designing local entrepreneurial ecosystems that promote local and regional innovations that can be shared through both statewide as well as regional peer-to-peer networks.

Using the Bioregion as the Focus for Economic Development

As the U.S. economy continues to grapple with the downturn of manufacturing—historically a major sustainer of jobs and economic growth—economic development models stressing the importance of technological and *business model innovations* through connections between entrepreneurs, investors, academics, and practitioners have emerged across the country. While these efforts have generated economic success stories, most of these successes have been relegated to urban and suburban zones, leaving many rural economies lagging behind. To advance their economies, these rural regions should orient their development towards their environmental and biological comparative advantages relative to their urban and suburban neighbors (e.g., capacity to produce agricultural goods). The idea of utilizing “bio-advantages”—such as agricultural assets and regional biodiversity—for economic development is a not a new idea but harnessing and growing the bioregional economy through regenerative processes – specifically Health Innovation Districts – adds needed nuance and detail to this idea. For this reason, this action plan is expanding the scope from a food centric to an agriculturally centric bio-based model in order to build from established food council networks in hopes of stimulating novel solutions for local

¹ Gunderson, Gary, and Larry Pray. *Leading Causes of Life: Five Fundamentals to Change the Way You Live Your Life*. Abingdon Press, 2009.

economic revitalization utilizing Winston Salem as a regional hub or Innovation Lab we refer to as the *iLab*.

From Degenerative to Sustainable to Regenerative Processes

The promotion of sustainability—in everything from agriculture to architecture—over the last few decades has represented an unquestionably positive step from our historically degenerative approach towards the use of natural resources. Instead of simply taking what the environment provides and in many cases introducing toxins to the environment—as is the case with the degenerative approach—sustainability stresses the importance of replenishing resources from those areas of the environment being harvested. Although a step in the right direction, sustainable practices essentially seek the status quo—they do not strengthen the environment or society, they simply seek to maintain it for future generations.

Seeking to build upon the concept of sustainability, design experts and development practitioners have begun to increasingly turn to the concept of regeneration. As defined by the Regenerative Leadership Institute, a regenerative system “makes no waste; its output is equal to or greater than its input; and part or all of this output goes toward creating further output—in other words, it uses as input what in other systems would become waste.”² Simply put: waste = resource. Taking this definition one step further, Medard Gabel notes that regenerative development “is the use of resources to improve society’s well-being in a way that builds the capacity of support systems needed for future growth. Regeneration builds capacity; sustainability, at best, maintains it.”³

Food Innovation Districts: Enhancing Rural-Urban Linkages

As the concept of regenerative design has become increasingly popular, so too has the idea of innovation districts. Innovation districts are defined as “geographic areas where leading-edge anchor institutions and companies cluster and connect with start-ups, business incubators, and accelerators. They are also physically compact, transit-accessible, and technically-wired and offer mixed- use housing, office, and retail.”⁴ Across the country, local and state governments are beginning to recognize the benefits of these districts and creating them within their jurisdictions. Today, innovation districts are bringing together tech experts, entrepreneurs, investors, and public sector leaders to enhance innovation and develop solutions to a wide-range of issues. While these innovation districts are offering promising solutions to economic development issues, they have been mostly tied to urban districts such as Boston, San Francisco, Austin, and Durham, with rural areas experiencing less if any benefit. However, a new take on innovation districts—known as Food Innovation Districts—offers promising returns to rural regions and urban regions alike.

As defined in “Food Innovation Districts: An Economic Gardening Tool,”—the base document authored by Michigan State University and outlining the creation and implementation of these districts—food innovation districts are defined as “a geographic concentration of food-oriented businesses, services,

² Regenerative.com, “What is Regenerative Design?,” *Regenerative Corporation*, <https://www.regenerative.com/what-is/regenerative-design>

³ Gabel, Medard. “Regenerative Development: Going Beyond Sustainability.” *Design-Science Lab, New York* available online at: <http://www.designsciencelab.com/resources/Regenerative-Development.pdf> (2009).

⁴ Katz, Bruce, and Julie Wagner. “The Rise of Innovation Districts: A New Geography of Innovation in America.” *Washington: Brookings Institution* (2014).

and community activities that local governments support through planning and economic development initiatives in order to promote a positive business environment, spur regional food system development, and increase access to local food.”⁵ The key to these districts involves the reduction and/or simplification of food supply-chains from farm-to-table and the establishment of infrastructure to support these enhanced supply chains such as establishing Food HUBs and innovative marketing tools akin to Miracle Grounds Farm & Network’s Story of the Plate. As the Michigan State University document highlights, too frequently local grocers, restaurants, and schools receive food at the end of long interstate (and sometime international) supply-chains, despite being in close proximity to abundant food production sources. Part of the challenge is that local farms sometimes have difficulty with scaling agricultural production in a way that allows these farms to keep food local in a fiscally beneficial manner.

To overcome this challenge, infrastructure and services—such as processing centers, storage banks, and transportation carriers—will likely need to be created within the district itself as well as its rural counterpart. Once the challenge of keeping food local (producer-side challenges) is overcome, food-associated businesses and entrepreneurs need to be provided with adequate incentives to develop and expand the local food industry within the district (consumer-side challenges). Through development of infrastructure and services at both the producer and consumer end of food supply chains, food innovation districts are able to link rural zones to urban zones—an ability less frequently realized with traditional innovation district models.

Food Innovation Districts: The Starting Point

Once the geographic boundaries of a food innovation district are determined, an exhaustive study of the bio-related resources available will be required. These resources include the types of agriculture currently being grown; storage, processing, and transportation capabilities in existence; food-related community assets (restaurants, farmers markets, grocers, culinary training, etc.); and key stakeholders (farmers, locally elected officials, entrepreneurs, business owners, investors, etc.) who support the innovation district initiative. Once identified, these on-hand resources can be used to map the linkages between producer and consumer-side processes within the district and identify additional resources that will need to be created or won over to support the district.

Applying Regenerative Processes to Food Innovation Districts

So how would a regenerative design approach be applied to a food innovation district and why is it important (isn’t a sustainable approach good enough)? To answer the how, Medard Gabel’s comments again prove useful. As Gabel notes, the key question needing to be asked over and over again when taking a regenerative approach is “how can we solve this problem in such a way that we improve the capacity of the underlying support systems?”⁶ In a food innovation district, the key underlying support system is the agricultural yield and more importantly the soils that support these eco-systems, but community support is also critical. So, the way to apply regenerative processes to a food innovation

⁵ Cantrell, Patty, Kathryn Colasanti, Laura Goddeeris, Sarah Lucas, Matt McCauley, Michigan State University Urban Planning Practicum 2012. Food Innovation Districts: An Economic Gardening Tool. Northwest Michigan Council of Governments. March 2013. Available at: www.nwm.org/food-innovation-districts

⁶ Gabel, Medard. "Regenerative Development: Going Beyond Sustainability." *Design-Science Lab, New York* available online at: <http://www.designsciencelab.com/resources/Regenerative-Development.pdf> (2009).

district involves looking at each individual component of the district—from producer-side to consumer-side—and asking Gabel’s question. On the producer-side, it might be easier to identify farming techniques that could be utilized to strengthen future agricultural yield (MGN’s proposed Bionutrient approach to Regenerative Farming). On the consumer-side it might be easier to identify ways to strengthen community support of the district, which in turn will have positive trickle-down effects on strengthening the producer-side of the district. Ultimately, strengthening of these underlying support systems will lead to a strengthened bioregional economy.

In answering why a regenerative approach is needed in the creation and implementation of food innovation districts, the simplest reason is that the status quo—the core outcome of sustainability—is no longer good enough. The status quo has been unable to lift rural regions out of the many economic and health obstacles these communities continue to experience. Instead, a regenerative approach takes the status quo as its starting point and seeks to build upon it, deriving greater economic and health benefits to those within the region where regeneration is being practiced.

Although the design and development of Health Innovation Districts is the central focus of this action plan, Food Innovation Districts provide a conceptual basis within existing innovation district trends as well as a practical starting point for local and regional food councils to begin integrating entrepreneurship into their local development strategies. With this in mind, food is not the end goal given the systemic change required to transition from the extractive or degenerative economy to one of abundance and regeneration. For this reason, this action plan should also be considered an essential step in laying out the conceptual and practical framework for building a comprehensive development model rooted in positioning food councils as a central catalyst in shifting from a degenerative agriculture system to a regenerative agriculture model. Establishing the essential framework for building a Health Innovation District, arguably the next step in the evolution of the innovation district model, is through the deployment of this comprehensive Action Plan rooted in enriching local networks – outlined below. The following sections leverages the successes built through Miracle Grounds Farm & Network as well as the importance of establishing Food Innovation Districts within its network and broadens the scope of food to include agriculture in general - the foundation of establishing a regenerative economy.

APPENDIX B

BIONUTRIENT FOODS

In a 2011 Scientific American article entitled *Dirt Poor: Have Fruits and Vegetables Become Less Nutritious?* the author cites a “landmark study” by Donald Davis and his team of researchers at the University of Texas who studied the U.S. Department of Agriculture nutritional data from both 1950 and 1999 for 43 different vegetables and fruits, finding “reliable declines” in the amount of protein, calcium, phosphorus, iron, riboflavin (vitamin B2) and vitamin C over the past half century. “Efforts to breed new varieties of crops that provide greater yield, pest resistance and climate adaptability have allowed crops to grow bigger and more rapidly,” reported Davis, “but their ability to manufacture or uptake nutrients has not kept pace with their rapid growth.” However, although present agricultural practices that both exacerbate soil depletion and breed plant varieties solely for yield, Jo Robinson, author of “Eating on the Wild Side: The Missing Link to Optimal Health,” pointedly expands the “Dirt Poor” culprit to include our relationships to the soil since the Neolithic revolution, also called the agricultural revolution, in a 2013 New York Times article entitled *Breeding the Nutrition Out of Our Food*. Robinson writes, “studies published within the past 15 years show that much of our produce is relatively low in phytonutrients, which are the compounds with the potential to reduce the risk of four of our modern scourges: cancer, cardiovascular disease, diabetes and dementia. The loss of these beneficial nutrients did not begin 50 or 100 years ago, as many assume. Unwittingly, we have been stripping phytonutrients from our diet since we stopped foraging for wild plants some 10,000 years ago and became farmers.”

Given the measurable decrease of nutrient density and the direct correlations of these vital nutrients to reducing overall health disparities, Miracle Grounds Anchor Farm & Network has launched a unique Community Resiliency model that links soil health to both social determinants of health (via. gut biome) as well as trauma resiliency (via. neurophysiology). With the goal of increasing the nutrient density of food production within the city of Winston Salem and throughout the piedmont triad region and informed by the emerging field of biomimicry where our team is learning from no-till, pre-Neolithic soil environments such as forests and grasslands that regenerate as opposed to degenerate soils, the Anchor Farm functions as a regional Living-Lab Platform for identifying and scaling best practices for building living soils that optimally produce nutrient dense foods using well established agriculture practices (see: Solomon & Reinheimer; Astera; Zimmer). The Miracle Grounds team works with a rich network of community gardens as well as urban and rural farmers primarily located in areas of the city that have the highest health disparities. Located in East Winston, two key pilot gardens of this network are also partners with HOPE whose mission is to use community-wide volunteer support to prepare and bring nutritious weekend meals to the thousands of children in Forsyth County who are at risk for hunger. In June 2019 our team partnered with Love Out Loud summer camp to launch both the Anchor Farm as well as the garden Network by regenerating our farm as well as East Winston Community Garden through building infrastructure for growing nutrient-dense foods that links soil-to-food-to-gut-to-neurophysiology, in turn, providing a holistic Health Innovation model that builds both resilient souls and soils in tandem.