



April 21st, 2011

SWEET WATER ORGANICS MILWAUKEE GROW ZONE PROJECT

Preamble:

Sweet Water Organics was designed to benefit from, and help reverse, a confluence of local, national, and global trends.

*) Most agricultural jobs exist outside of urban areas. SWO seeks to reverse that by creating jobs in an urban setting, and additionally by providing comprehensive training for others so that they can go on and do the same.

*) Most food production worldwide is heavily petroleum dependent. Fertilizers are primarily petroleum based, and transportation costs are heavily dependent on petroleum. As petroleum prices head towards \$200 a barrel, SWO seeks to grow organic food without fertilizer, meant to be delivered locally & regionally, thus reducing petroleum dependence two ways.

*) Oceans and Lakes are being over-fished, and pollution is a growing problem. Indeed, Lake Michigan halted the commercial fishing of Yellow Perch in 1996, and is unlikely to resume it.

*) The Great Lakes Region of the US accounts for 30% of US population, yet produces only 2% of its seafood production. The Great Lakes Region is a net importer of over 1 billion pounds of seafood annually. SWO is partnering with local educational & science entities to grow high quality fish, including Yellow Perch, using state-of-the-art aquaponics systems. SWO is doing this indoors, in an urban environment to meet demand, and reduce dependence on imports. The demand for locally grown, high quality fish within 5 hours of the Great Lakes is virtually unlimited.

*) As recent events in Japan, and elsewhere, help highlight, the issue of food safety, and food security continue to grow globally, putting huge upward pressure on food prices locally, and worldwide. Once again, SWO is positioned to help reverse that trend, profit from it, and create Milwaukee jobs as a result. SWO uses clean water, and fish byproducts, to also grow high quality organic vegetables and produce with a minimum of space, in an urban setting, creating urban jobs. As consumer awareness of the importance of fresh, healthy food increases, so does the demand at local restaurants, Supermarkets, and wholesalers. Again, SWO is stepping in to supply the increasing demand, increase awareness of healthy, sustainable alternatives to mass-produced food from foreign countries.

*) At a recent major international conference it was concluded that if current trends continue, the world will have to produce as much food in the next 40 years, as it has in the last 8,000 years.

*) Quite simply, SWO has always faced a situation where the demand for their products far outstrips their ability to produce it. They face no challenges in terms of selling, or marketing their fish or produce. Funding for additional production capacity, will drastically increase their production, which will instantly be absorbed by the market, which will translate to greatly enhanced revenue generation, and thus, higher urban job creation.



OVERVIEW

Sweet Water Organics (SWO) seeks to build on Milwaukee's growing reputation as an international leader in community-based, sustainable agriculture production by continuing to improve and expand its existing facility in the Bay View neighborhood. The Milwaukee Grown Zone (MGZ) project will dramatically boost production at the current SWO site through the construction of outdoor green houses, completion of a 1 acre outdoor commercial composting structure, construction of a 1200 sq ft sprout production room, and construction of additional commercial scale fish tanks. This expanded and re-engineered model site will serve as a stepping stone toward the development of state of the art urban, green agricultural practices that can be applied to future projects in Milwaukee. This will allow SWO to continue to develop and grow the sustainable organic agriculture industry in Milwaukee. Additionally, SWO will simultaneously continue to develop and implement training and certification programs leading to job opportunities in the urban ag/aquaponics industry.

The Milwaukee Grow Zone is designed to result in:

- Fish production is anticipated to rise to 150,000 filets by 2012, and 220,000 by 2013. An increase from approximately 105,000 for 2011. Vegetable production is estimated to rise from 96,000 plants in 2011, to 165,000 for 2012, and 261,000 for 2013. Sprout production is anticipated to rise from a current nominal number to 500 trays a week by year end, 1000 trays a week by 2012, and 1300 trays a week by 2013. Outdoor commercial grade compost production will rise from zero, to 8 tons per month by year end, and for 2012, and to 11 tons per month by 2013.
- This will lead to the creation of 10 FTE jobs by year end 2011, and 15 by year end 2012.
- An innovative, on-site training model will also be developed to incorporate on-to-one mentoring, integration of a broad set of technical skills and knowledge, and an aquaponics credential program.
- A series of 4 annual international workshops will also be implemented, as will an expanded program of educational tours for the numerous interested parties from all over the world.

Additional benefits of the Milwaukee Grow Zone include:

- Increased food security, and quality, for the Milwaukee metro area with a yield of thousands of additional pounds of wholesome foods: yellow perch, lettuce, tomatoes, green peppers, sprouts, herbs, among others.
- Economic benefits from out-of-state and international visitors who come to learn about the SWO model and, during their visit, patronize Milwaukee's hotels, restaurants, and tourism sites.
- Re-purposing of an abandoned factory to a neighborhood-friendly industry that generates little noise, efficiently utilizes natural resources, and has a beneficial effect on the environment.
- Partnerships with the local Universities and schools that offer opportunities for learning and innovation to prepare future generations for more sustainable, productive living.

COMMUNITY NEED, MARKET DEMAND & INTERNATIONAL INTEREST

Through the implementation of the Milwaukee Grow Zone Project, SWO will create a pathway for local "green industry" growth that will provide much-needed jobs, attract related businesses and foundations to invest, and support community development. Jobs created through the MGZ will be



sustainable since they are based on a strong local demand for organic food products. SWO currently provides substantial quantities of fresh fish and organic vegetables and sprouts to more than 20 local restaurants, markets, and wholesalers in 2011. Our current accounts have expressed interest in more than tripling their current orders, while other vendors, who are not current customers, have expressed the desire to purchase from us when additional capacity comes online. The jobs created through the MGZ will stay in Milwaukee for the long term, encourage families to reside in city limits, and be accessible career opportunities for entry-level "middle class" workers. SWO will build on its name that has been promoted by NBC Nightly News, the Wall Street Journal, New York Times, and other news outlets by continuing to attract visitors, businesses, and foundations from throughout the nation and world. It also will build on the support it receives from IBM as a result of winning the Smarter Cities Challenge Grant. Additionally, it will continue to expand its synergistic working relationships with the Great Lakes Water Institute, MSOE, MTEC, and other Milwaukee educational and scientific entities. SWO has hosted in the past three months alone, leaders from businesses, non-profits, government, and universities from over 20 states and 8 countries. With the completion of the SWO phase #1 we will be able to attract more people to Milwaukee growing the Green Industry locally, and continue to promote Milwaukee as the leader in urban agriculture on a global level.

MGZ PROJECT TIMELINE

Stage One of the Milwaukee Grow Zone project will support the completion of an on-site outdoor, commercial grade composting facility, a 1200 sq ft sprout production room, and the expansion of the outdoor portion of the existing facility, which includes over 5,000 sq feet of green houses and at least 3 new commercial grade fish tanks. This stage will be initiated in May 2011, and will be completed by year end. Jobs to be created will include: laborers, engineers, a biologist, a horticulture position, a water chemist, fish specialist, etc. in the construction and upkeep of the new outdoor and indoor 3-4 season production areas. Construction of the composting site, sprout room, and outdoor expansion will be completed by December 2011, and result in dramatically increased crop yield across all areas of production. This includes new varieties of crops (tomatoes, peppers, and cucumbers), and the piloting of a vertical growth approach that will enable more efficient use of space.

By the end of the first stage of the MGZ project, the model SWO production and training site will be completed, enabling a consistent, year-round yield to start to further meet the demand of local buyers and demonstrating the model's viability for replication and broader investment. Simultaneously, we are, and will be in continuous talks with other potential investors, business partners, and strategic alliance partners about further expansion, and thus job creation in the Milwaukee area. It is difficult to predict the outcome of such talks until they are finalized, but given the number of organizations that have already been in contact with us, it is likely to happen soon, and be substantial.

INNOVATIVE TRAINING AND PROFESSIONAL SUPPORT

The Milwaukee Grow Zone will support workers in developing a broad set of technical skills and knowledge in a fast-growing, 21st century industry. While effective management of aquaponics systems requires proficiency in a diverse set of scientific disciplines (water chemistry, fish science, and plant biology, etc.), the SWO model provides entry-level workers with the opportunity to participate in each step of the food production process. Through one-to-one mentoring and hands-on learning experiences within this process, SWO workers will gain an increasingly advanced set of technical skills and knowledge.

As workers develop their skills expertise and production capacity is expanding, new positions will likely



be created both within SWO and related "spin-off" industries, enabling a career ladder of opportunities for participating workers. SWO will also offer an aquaponics credential program and professional learning community, in coordination with area educational institutions, to support workers and other interested community learners in developing urban agriculture expertise and sharing innovations. SWO is also in conversation with MTEC looking at certification programs in urban agriculture/aquaponics.

HIGH LEVERAGED INVESTMENT FOR LONG TERM ECONOMIC IMPACT

In addition to the creation of, what we believe to be, 45 direct and indirect jobs locally and the long-lasting worker skills development, re-purposing of unused city property, and increasing property tax revenue, the Milwaukee Grow Zone will leverage city investment of \$250,000 through the attraction of new ideas, dollars, foundations, businesses, and residents who want to be part of Milwaukee's green industry movement. A recently announced example of this is IBM's selection of SWO to be provided \$400,000 worth of in-kind consultative and scientific expertise towards promoting sustainable systems innovations. With the city of Milwaukee support, Sweet Water Organics will be able to demonstrate the full potential of its model and continue to attract interest, millions of dollars of investment, and intellectual resources, from businesses, educational and scientific entities, and foundations, that will support Milwaukee's emergence as the leader in the fast-growing green industries of food production and freshwater use.