

**EcoLoop Proposal** Alachua County

Designee and contact: Christina Kelcourse, JD, CFP, CRPC

Co-owner of Sunshine Organics & Compost

Phone: 561-632-2747 • Email: [Christina.w.kelcourse@outlook.com](mailto:Christina.w.kelcourse@outlook.com) • Website:

[SunshineOrganicsandCompost.com](http://SunshineOrganicsandCompost.com)

Sunshine Organics & Compost (Sunshine) is proposing a 15-to-20-acre site in the Leveda Brown Environmental Park in Gainesville to open a commercial compost and biochar facility. We will accept food waste, agricultural waste (including manure and other animal byproducts, as well as agricultural vegetative waste), and yard waste and turn it into organic compost, biochar, mulch, and other landscaping material. And we propose taking in palm trees and palm tree waste, as well as pallets (2 hard to recycle products), which we will repurpose into biochar. Our business model is to maintain our solid waste plan at the Leveda Brown Environmental Park with a long-term vision.

This facility will utilize state of the art equipment, that will be a model for other municipalities, cities and states. We will use Aerated Static Pile (ASP) composting technology, in bunkers, with an additional small portion being windrow composting for finishing the compost. The ASP technology turns organics into compost in about 1 to 2 months, with an additional month of processing in a windrow before we have our final finished organic compost. We estimate that an Alachua County facility would be permitted with a capacity to handle between 80,000 to 100,000 tons of organic waste and yard waste per year, making it one of the largest food waste composting facilities in Florida, as well as the Southeast! A big win for the community and the environment.

The facility will also utilize a high temperature pyrolysis (biochar) kiln that will take any biomass, heat it between 800 and 1400 degrees Fahrenheit with little-to-no oxygen, and turn it into biochar. The biochar produced on this property will likely be used for soil amendments to mix with the compost and create carbon-rich soil for local farmers and landscapers. For every 1 ton of biochar we produce at this facility, we will sequester 2.36 tons of carbon and put it back into our soil where it belongs.

**EcoLoop criteria**

Sunshine will provide innovative management practices for several of the following EcoLoop listed materials, including: Yard Waste, Industrial Waste, and Organics, Food Waste, Agricultural Waste including Manure.

Sunshine will also demonstrate compliance in the following areas:

1. Zero Waste Strategies Report and Implementation Plan
2. Economic Development Benchmarks
3. Comprehensive Plan
4. Planned Development Master Plan

Sunshine can demonstrate how we fit the EcoLoop Zero Waste Definition: “The conservation of all resources by means of responsible production, consumption, reuse and recovery of products, packaging, and materials by minimizing discharges to land, water, or air that threaten the

environment or human health.” The essence of Sunshine’s business model is being full-circle; we reuse and recover organics, and in a sustainable way we create soil amendments that can be used again to grow more organics. During this process we are reducing emissions, cleaning the air and providing an organic option to chemical fertilizers.

Sunshine is the type of business that Alachua County should invest in; we are innovative, strategic, well connected and climate smart. We are an American made, family-owned business. We are proud to have set precedent by being the first and only food commercial compost site in Jacksonville Florida to successfully complete the permitting process. And one of only three commercial food scrap compost facilities in The State of Florida.

We would like to open an identical facility within the EcoLoop at the Leveda Brown Environmental Park. We know having a Sunshine facility in Alachua County will have a big impact on reducing organic waste (food scraps, ag waste and yard waste) sent to the landfill, a portion of the solid waste stream not currently addressed in a significant way by the county’s solid waste system. In Duval County we currently divert 16,000 tons of food waste and 33,600 tons of yard waste per year, with the capacity and ambition to grow to 60,000 tons annually within the next 2 years. And we create 19,200 tons of soil amendments each year. Following the same plan, Sunshine will show measurable reduction in solid waste diverted from the landfill in Alachua County. Our past experience and successes will help make an EcoLoop facility open quickly and efficiently.

### **Guiding Principles for projects within the EcoLoop**

Sunshine’s core business model shares similar principles outlined by the EcoLoop:

**Support upstream solutions; reuse and reduce disposal**

**Keeping resources local**

**Mitigate climate change while addressing environmental justice**

Sunshine is part of a full circle waste management system which strengthens upstream solutions. We prioritize food and organics recycling, by diverting organics from the landfill and creating a high-quality product that can be used again. Although, our products can be shipped across the country, most of our products will be utilized locally.

Our soil amendments will benefit local landscapers, farmers, gardeners and municipalities. End-users who use real compost will be able to calculate numerous economic benefits, such as cost savings on fertilizers, water retention, and direct savings on irrigation water costs. Sunshine products are a lot less expensive than chemical fertilizers. In addition, compost and biochar help plants and grass absorb more water and nutrients, making root structures stronger, healthier, and more resilient to the impacts of climate change.

It is important to note that Sunshine products and services will be very valuable to local agriculture. Currently 1,611 farms contribute to the workforce in Alachua County. Sunshine gives these farms a competitive advantage. First, Sunshine can help to reduce waste service costs paid by farms, by collecting agricultural waste. Composting agricultural waste is a cleaner alternative to burning it or landfilling it. Second, using compost and biochar helps farms to be more resilient; saving money, lowering costs, and strengthening crops. Lastly, Sunshine products

also bring a valuable resource to Alachua County farms by providing new revenue streams. The USDA knows, “when grown in good soils, crops are better able to resist disease, survive drought, and tolerate insects. Composting is one of the most reliable and time-honored means of conserving nutrients to build soil fertility.” Our research shows that the reason most farms use chemical fertilizers, is due to lack of access to other local options. Sunshine will directly provide a local option in Alachua County to increase organic and regenerative farming. And these options will help rural communities grow economically by creating new opportunities and offer potential new revenue streams, including: carbon credits, organic markets, and conscious consumer opportunities.

It is important to Sunshine that these opportunities are available to a diverse range of users and that all residents have equitable access to benefits. We follow a business model focused on the triple-bottom-line or economical, ecological, and social justice. We make a profit, but we also give back through our Compost Donation Program, and we are intentional in the involvement of underserved communities in this program. Lastly, we are currently exploring a B Corp Certification because we want to set the highest environmental and social standards.

**Mitigate Climate Change:** The core of what we do helps the environment; and our leadership team are strong environmental stewards. We are proud that from an environmental standpoint, there are fewer things greater for our environment than the natural process of composting and biochar. Compost enhances the soil’s ability to sequester and keep atmospheric carbon in the soil. The use of biochar is listed as one of the top solutions for climate change mitigation and is important for carbon sequestration as well as its ability to improve land health. For every ton of tree and agricultural waste that we turn into biochar, we are sequestering 2.36 tons of carbon from the atmosphere and putting it back into the soil.

When we divert 60,000 tons of organics from the landfill, the result is a saving of 52,800 tons of greenhouse gas emissions (through the composting process) and sequestering 23,600 tons of carbon (producing biochar), every year.

In addition to reducing emissions, there are numerous other environmental issues that are addressed by using Sunshine services, such as: green algae blooms, overflowing landfills, water quality and water conservation, air quality, reduction in chemical fertilizers and the serious issue of food waste. Compost can be used in construction as part of a green infrastructure strategy. Because healthy soil is also a weather hazard mitigation strategy, addressing drought, wildfires, storm floods and sea level rise. Soils high in organic matter, like compost and biochar, have improved water holding capacity, helping plants resist drought. Because of the water holding capacity of compost, municipalities who use compost in public green areas like parks and road medians, have help with flooding issues during rain storms, a problem all Florida cities struggle with.

**Intersectionality of compost & climate, environmental & food justice:** At Sunshine we understand that climate change, environmental justice and food security are all interconnected and that compost must be a part of the solution. According to the USDA, 38 million Americans are living in food insecure households. The EPA clarifies that these vulnerable populations are also disproportionately affected by climate change and environmental justice issues surrounding

poor air and soil quality within underserved communities. These startling facts are why we believe that Sunshine can shine a light on the climate smart applications of compost and biochar; and also, why we are committed to an equitable approach to Sunshine programing and community engagement. We have created the Sunshine Compost Donation Program. Through this program we provide free nutrient rich compost to support community gardens and farms in underserved areas and food insecure communities. We will be intentional in the involvement and support of underserved producers and partners that represent populations facing these issues. Through this program, Sunshine is currently working with many local organizations including representatives of Panama Park Neighborhood Association, the Black Church Food Security Network, and Feeding Northeast Florida. Year-to-date, Sunshine has already donated over 700 tons of compost to these organizations for starting community gardens in Jacksonville. And it is our intent to continue the program in Alachua County.

### **EcoLoop Economic Development Benchmarks**

Sunshine will take our role serious about expanding into Alachua County. Here we hope to grow and become involved in the surrounding community in the same capacity that we are connected in Duval County.

**Sunshine Business Model Proposed for Alachua County:** Sunshine business model (attached) shows clear understanding of development costs, sources of revenue and business expenses (material and labor) needs.

Here is a summary of the steps we would follow to open a new facility similar to the one in Duval County:

1. Find the right type and size property for our needs
2. Once property is secure, start the permitting process (engineered drawings, permit through Alachua County, permit through FDEP/SJRWMD or SRWMD)
3. Start site work, build out the composting area, leachate pond, scale with a scale house, run water and electric to areas needed
4. Get final sign off on finished construction of new facility from FDEP and engineers
5. Open for business

**Sunshine Facility Operations Overview:** Sunshine is a private independently owned and operated entity. Founded by owners Michael and Christina Kelcourse, husband, and wife. Our process is in accordance with all federal, state, tribal and local regulations governing soil, compost and nutrient manufacturing, processing, storage, distribution, and waste management. We hold 2 permits that require extensive reporting: a Certificate of Necessity from the City of Jacksonville, as well as a Yard Waste and Organic Waste Compost Facility permit from Florida Department Environmental Protection (FDEP). Both permits require upfront compliance with zoning and environmental regulations as well as strict monitoring, reporting and quick action to any issues. We also are proud to show that we are OMRI USDA Organic Certified which also requires regular soil monitoring. Our expansion to Alachua County will include application for all similar and necessary permits required in Alachua and the City of Gainesville.

Our process is simple, but requires a lot of steps. First, we collect feedstock or food waste, collected forest or yard waste, and agricultural wastes. Examples include: yard waste, tree waste,

woody biomass, forage waste, crop residue, grass, straw, sawdust, leaf litter, husks, vegetative waste such as sugar cane stalks, wastewater, manure and humic. This feedstock is diverted from the landfill and comes to our facility by coming across an industrial truck scale, for weighing and recording tonnage received from front-end customers. Our current front-end customers include both agricultural and non-agricultural customers such as tree service companies, landscapers, municipalities (including schools), restaurants, food manufacturers, breweries, beverage companies, and grocery stores. We also work with; municipalities by providing cities with climate smart options to process millions of downed trees after storms including hurricanes (saving this waste from the landfill and reducing GHG). Second, Sunshine carefully manages this organic waste on site, grinding, stacking, turning, moving, reporting and organizing the organic compost piles. Next, Sunshine takes this waste and converts it into high-end finished products: biochar, organic compost, other soil amendments, and mulch. This is done in a very natural way which is good for the environment. We sell these products in bulk, either in large bulk super-sacks, individual bags, or bulk truck loads, to farmers, foresters, landscapers, and other end users.

**Ability to Finance Vertical Construction:** Sunshine has strong financial capacity and readiness for the project proposed, and the ability to finance vertical construction covering all structures and equipment. Sunshine has a strong financial partner confirmed, that will provide the capital to open the proposed facility in the EcoLoop. Sunshine will also commit future cash flow from our Duval facility to ensure this proposals success.

The Sunshine leadership team has carefully assessed potential risks to this proposal, including financial risk. The core business model for Sunshine, focuses on diversifying financial risk, by creating relationships with several diverse front-end-and back-end customers. Our feedstock or front-end sources come from diverting food waste and organic green matter, unwanted forest and agricultural wastes. To do this we are currently work with both agricultural and non-agricultural customers such as tree service companies, landscapers, municipalities, restaurants, food manufacturers, breweries, beverage companies, and grocery stores. With such a diverse customer base we are protecting ourselves from fluctuations within one industry. We are also not dependent on one feedstock over another. In addition, on the back-end we sell several different products; mulch, top soil, compost, biochar and a compost biochar mix. This diversity protects us from rising or falling prices on any one commodity and help if there is a loss of a market.

In addition, our expertise in the waste industry as well as soil quality, have prepared us to handle foreseen risks such as odors, pests, contamination, fire and toxic waste, as they arise. Our employee handbook provides an action plan for employees in the case of a foreseen issue.

Sunshine is a financially viable project for Alachua County to invest in. Above we have outlined why we will succeed in the EcoLoop, and how we considered all details needed to make an informed feasibility assessment, including: technical merit, assumptions, marketing strategy, sales/feedstock sources, strengths, weaknesses, and potential risks. We expect the proposal to perform according to assumptions. The Sunshine team has the readiness and experience to support this expansion immediately.

### **Employment Quantity & Salary Quality**

Having a facility like Sunshine in Alachua County will add unique and diverse jobs. Each Sunshine facility will begin with 7 new jobs immediately and within the first 2 years grow to 15 or more. With the need for mechanics, drivers, and equipment operators, we will need to recruit skilled, technical and vocational employees, staff and interns. We know the value of helping employees develop these skills which is why we offer training for our employees. In addition, we will work with 2-3 interns a semester, in the college of communication and in research and development. We have also participated in mentor programs for the UNF Environmental Leadership Program, mentoring students from different industries. In addition to the jobs added above, we also anticipate indirect jobs for our project, including the engineering, construction, and continuous monitoring of our facility.

Sunshine has a great reputation of working with local organizations to recruit our community-based workforce. We will build similar bridges with Santa Fe College, University of Florida, and the Chamber of Commerce within the Alachua County area. And during this process we will continue to demonstrate equitable hiring and follow diversity, equity and inclusion principles. It is our goal, at each facility, to hire a majority of jobs from within the neighborhood where our facility is located, and to hire within communities impacted by inequities such as African Americans, low income, women, and LGBTQ. We have also recruited veterans to our current workforce.

We tackle labor issues by taking employee rights seriously. We offer fair and above average wages and are reviewing employee benefits such as health insurance. We currently provide several attractive benefits such as a friendly working environment, paid lunch breaks, flexible hours and easy onsite trainings.

### **Research and Development of Products and Processes**

What you already know from this proposal, is that Sunshine is actively engaged in developing processes for a circular economy. Being full circle is part of our core business model. But we have also been open to research and exploring new ideas from our community partners, to implement even better ways to expand our processes.

Below are a list of our community supporters and noted are several organizations and elected officials that have written us letters of support in the past.

Letters of Support from the community include: Saint Johns River Keepers; Feeding Northeast Florida; Jacksonville Black Church Food Security Network; Edward Waters College, Florida's First HBCU and MEANS Database. Also supporting us are: the North Florida Green Chamber of Commerce; Florida Green Building Coalition; Panama Park Neighborhood Association and Panama Park Community Development. In addition to having a letter of support from the Duval UF/IFAS extension office, we also have a letter of support directly from Gainesville, from the University of Florida Office of the Dean for Research.

Sunshine's relationship with forest landowners is very important to ensure our supply of wood for making biochar. Letters of Support: JEA Utility Forestry Department and North Florida Land

Trust. And existing relationships with: Rayonier; Florida Forestry Association; Duval and Clay County Forester & Nassau County Forester.

Sunshine has worked with several farms that are early adopters of climate smart practices. These farms set an example of sustainable waste management practices and climate smart soil application. The farms listed below all support us and want the option of a supply chain manufacturer of local compost and biochar. Our list of supporters include over 2,000 acres of farmland within 13 counties across Florida and Georgia including: Baker County, Duval County, Saint Johns County, Putnam County, Sumter County, Lafayette County, Suwannee County, Alachua County, Union County, Nassau County, Charlton County GA, Pierce County GA, and Madison County GA. We know we can increase this list by engaging more with the agricultural community in and around Alachua County. Letters of Support: Abundant Harvest Farm; Green Legacy Farm (both women, BIPOC owned); Backyard Buffalo, Juicy Roots, Worldwide Aquaponics (women-owned); Down to Earth Farm, Congaree & Penn; Johnny Appleseed; Man-in-Overalls; Bee Friends Farms; Dig Local Network, The Villages Grown, Gardner Farms, Frog Song Farm, Hoover Farms, Promised Land Organics, Bacon Farms and Ben Wells Produce Farm. We are also supported by several other producers including: White Harvest Farms/Clair White Mission (woman, BIPOC owned); the Local Flower Co; Cartwheel Cattle ranch; and Piece of Heart Farm (all women-owned); Alvarez Farms; The Farm at Okefenokee, GA; 3 Porch Farm GA; RWB Ranch and the Florida Black Farmers Association.

According to the USDA 2017 Census of Agriculture, Alachua County has 1,611 farms. Of these farms, only 1% offers organic products and only 6% use regenerative agricultural practices. The case is almost identical with the other surrounding counties. This presents an opportunity for Sunshine to expand the organic market in Central Florida. This low access directly correlates with the low numbers of farms that use regenerative farming practices and/or farm organically.

Sunshine also has strong relationships with municipalities and government leaders in our region which demonstrates our capacity to work with local governments. Permitting and reporting are important aspects in the process of operating a compost and biochar facility. The team at Sunshine has had a positive experience working with city solid waste departments, elected officials, government leaders, and government agencies, all parties involved with permitting and reporting. The support we have received for this project from regional and state governmental agencies is demonstrated in letters of support: Florida Department of Agriculture, Office of Energy; Florida Congressman Al Lawson and member of the House Agricultural Committee; Florida Congressmen John Rutherford; Florida Congressmen Aaron Bean; Chief Science Officer for the State of Florida DEP; City of Jacksonville Chief Resiliency Officer; City of Jacksonville Sustainability Manager; City of Orlando Director for Office of Sustainability; Mayor of the City of Atlantic Beach Ellen Glasser; Jacksonville City Council President Ron Salem; Jacksonville City Councilman Reggie Gaffney; Environmental Protection Board of Jacksonville; and the University of Florida IFAS Extension Services.

We are members of the US Compost Council (USCC), and participate in the local state chapters in Florida and Georgia. We are members of “Recycle Florida Today” and the “Georgia Recycling Coalition” Sunshine has a strong relationship with both organizations, and has taken

on leadership roles with these groups in hopes of advancing composting in these states. It is our intent to grow these relationships within Alachua county and surrounding communities.

### **Alachua County Comprehensive Plan**

**Solid Waste Element:** Sunshine will help Alachua County to meet the criteria for Solid Waste Objective 1.2, 1.4, and 1.5. Sunshine can also be an asset to the County to reach objective 1.5.9. Sunshine employees often volunteer to teach classes, both live and online webinars, sit on panels, and participate on podcasts, to educate the community about how to compost. This has included both commercial efforts as well as at home composting efforts.

**Energy Element:** Sunshine will help Alachua County to meet the criteria for Energy Objective 7.1-7.5. Sunshine will be an asset to the County to reach the 75% waste recycling goal mandated by the state in 2020. In addition, based on the projected numbers provided from Alachua County of organic tons available for use, Sunshine will help by manufacturing 36,000 tons of organic compost from 56,000 tons of recycled food and organics. Which will reduce 38,192 of greenhouse gas emissions annually.

Sunshine's model includes the recycling of yard waste. Yard waste is recycled into wood chips, which are a requirement to make our organic compost. We also create mulch and pine bark for use on landscapes and on local farms. All this yard waste is diverted from the landfill. And through our Compost Donation Program we have donated 712 tons of organic compost back to non-profits, schools, churches, and other community gardens. We have also donated 440 tons to local farms.

**Economic Element:** Sunshine will help Alachua County to meet the criteria for Economic Objective 1.1 and 1.1.6 Sunshine will help the county to be more environmentally sustainable. Composting and biochar can both create alternative energy sources. There are several new technologies that reuse organics and turn them into usable new products, all while generating a usable energy source. Sunshine has thoroughly researched such markets, and have added these sustainable technologies into our future business models.

### **Impact and Closing**

Project Sunshine will be successful because our plan is thorough and well researched. The technologies we use are modern but not new, and have data driven research behind them. We have strong financials to support delays, roadblocks or daily operational issues, and a strong financial partner behind us. We feel Alachua County has the front-end customers to provide us with the feedstock we need. And we feel a positive collaborative relationship with the local municipalities including the Alachua County solid waste department. We have a mitigation plan that addresses potential risks. We have the leadership team to execute our business plan. Lastly, it is a good time in the industry. Front-end customers need an alternative to over-flowing landfills. Back-end customers are requesting our products because of the high-quality nutrients in our mix. Farmers are expressing interest in regenerative farming options. And compost and biochar are less expensive than chemical fertilizers.

Our proposal will be a win for everybody. Sunshine will help reduce food and yard waste going to the landfill while reducing emissions. We will be centered in the community by hiring within



the neighborhood and providing a mix of job diversity options. Our organic compost will be valuable to farms while our Compost Donation Program gives back and enriches community gardens. The more organic compost that Alachua County land applies, the more resilient the county becomes. Adding to green infrastructure initiatives. In addition, the Sunshine team will deliver educational resources to the community around food waste and composting efforts. And we will be a resource to local restaurants, grocery stores and other food manufacturers, for diverting waste in an environmental way that also saves them money.

Our proposal shows that Sunshine can be an anchor of innovative waste ideas in Leveda Brown Environmental Park, making Alachua County a model for other counties in the State of Florida with similar needs. Often times, the land is one of the hardest parts about setting up a facility like ours. However, Alachua County and the City of Gainesville have been forward thinking in their set up of the Environmental Park, and we applaud them in the idea of setting up land designed specifically for whatever is needed to build these types of facilities.

Thank you for your consideration of letting us join your team at the Leveda Brown Environmental Park.

### **Possible Partnerships**

We believe we will find a good synergy with others in the Leveda Brown Environmental Park especially business who are doing innovative things.

To supplement our proposal, we have a few business partners that we work with in Jacksonville who are interested in collaborating and “tagging along” with Sunshine Organics as we open new facilities throughout the State. Both partners are needed in the community, they are both innovative, and they both benefit from being near a compost facility. They fulfill some of the guiding principles of the EcoLoop and would be valuable to Alachua Counties mission.

The first partner is Premier Grease and Dewatering. Premier Grease is a grease trap and restaurant waste business that can service restaurant and grocery store customers in and around Alachua County. We work directly with the owners of Premier Grease in Jacksonville and we have a great relationship with them. They would be proposing to set up a dewatering facility at Leveda Brown Environmental Park to take the grease trap waste, dewater it, where they send the water back to GRU for reuse, and create a dry cake of organic waste that can then be composted at our facility. With the lack of diversity of grease waste companies to choose from in Gainesville, this will add another option for local businesses.

The other business is Atlantic Can. Atlantic Can takes used tires and utilizes a process to recycle the rubber and turn the finished product into a clean, playground quality rubber mulch. They also make a fuel grade rubber that can be utilized to make fuel for energy generation. The nuisance of wasted tires cannot be understated and there is a huge need to repurpose tires. Atlantic Can will add a great value to Alachua County by turning that waste into something useful again, especially with such a close proximity to the transfer station next door.