

Path To Prosperity Concept Description For Juneau Composts

Business concept or company description:

What is the product or service to be provided by the business?

Juneau Composts provides Juneau with the opportunity to recycle food scraps and yard debris, which decreases landfill usage, minimizes carbon and methane emissions, and creates a wonderful soil amendment necessary for the growth of local fruits and vegetables. Individuals, businesses, and organizations sign up for weekly curbside pick up and processing service. They sort their organics into provided containers, which are set at the curb on collection day. Materials collected include pre- and post-consumer food scraps, spent grain, shredded paper, yard debris, paper towels, and bioplastic plates, cups, and cutlery. The contents of the containers are collected 1-2 times a week and are taken to our centralized compost facility where we use hot composting methods to create the finished compost product. Members of the service receive shares of the finished compost as it becomes available. Additional compost is sold to non-members during the spring and fall. We have over 120 customer accounts and have diverted more than 56,000 pounds of organics from the landfill in our first year of operation. Our clientele is diverse: we serve schools, restaurants, breweries, nonprofits, and government organizations. Our residential customers also also varied, hailing from virtually every neighborhood, and living in houses, condos, and apartments. Our variable price scale (\$7-25/month) accommodates nearly every budget.

In addition to our convenient compost processing service, Juneau Composts does community outreach by providing technical assistance, by giving presentations, and, generally, by talking compost to anyone who is interested. We have seen an outpouring of interest and support over the past year, and we are working on plans for significant expansion. By creating a larger and more efficient compost site, and by hiring employees we aim to fulfill Juneau's demand for organics recycling and finished compost. We are proud to help individuals and businesses strive for a high standard of environmental sustainability.

Describe the problem, need or opportunity you want to solve or take advantage of.

There are two main problems Juneau Composts can help solve: 1. Juneau lacks sustainable and responsible organic waste management practices. 2. Juneau lacks tillable soil and a source of local soil amendments.

People and businesses are becoming increasingly concerned about the environment and their own contributions to its degradation. Juneau dumps 33,000 tons of material in the landfill each year.¹ The EPA reported in 2013 that organic materials such as paper, yard

¹ http://www.juneau.org/pubworks/projects/SWMS/documents/FINAL_CBJ_Solid_Waste_Mgt_Strategy_

trimmings, and food were the largest component of the waste stream, comprising 54% of “trash.”² That translates to 16,000 tons of potential compost feedstock for Juneau. This is a vast environmental and economic resource that is going untapped.

Recycling of food and yard scraps is gaining popularity in communities across the country as an economically sound environmental solution to reduce the cost of landfill operations, to reduce odor and greenhouse gas emissions, and to produce a sellable compost product. Nationwide, 24 states have banned the landfilling of key organic waste streams, such as yard debris. Perhaps even more telling of the future of waste management, five states (Vermont, Massachusetts, Connecticut, Rhode Island, and California) have passed legislation calling for a total ban on landfilling organics, each with its own incremental steps toward reaching that goal in the next several years.³ Alaskan communities, such as Anchorage, Fairbanks, Petersburg, and Gustavus, have taken steps to align their waste management practices with those of the Lower 48. While Juneau is behind the curve in organics recovery, it is also showing great interest in composting, land stewardship, and food security, and Juneau Composts is ready to serve the community. Curbside composting service for food and yard waste offers a rare win-win environmental solution by helping businesses and communities reduce their environmental impact, while creating both employment and a safe and marketable end product. There are more than 200 U.S. communities with curbside collection of food scraps, and the composting sector is projected to grow.

With diminishing landfill space and growing public concern, composting is a great economic and environmental solution. It is being said that the landfill in Lemon Creek will only last another 20 years at the current rate of use. Why should we fill it with things that do not need to be there, especially when those things are local commodities? Once the landfill closes, the CBJ is considering barging our trash to the Lower 48. We need to take responsibility for our own waste. Washington’s environment does not need our trash, and Juneau’s economy cannot afford to ship resources like organic waste out of state. The Earth can not handle unlimited fossil fuel use, and Juneau’s citizens should not have to carry the burden of having a diet that travels a thousand miles to us only to have much of it shipped a thousand more miles away as trash. The USDA states that in 2010 31% of food was wasted at the retail and consumer level, so that would be about a third of Juneau’s imported food riding the barge through the Southeast Passage twice.

The cost of imported bagged compost and garden soil ranges from \$5-25 for one cubic foot. A local composting facility can viably compete with those prices. The production of local soil amendments has the potential to drastically change the local gardening and farming scene. Currently, growing medium is a barrier to entry and expansion, and Juneau Composts aims to serve as a cornerstone in Juneau’s growing local food industry.

²<https://archive.epa.gov/epawaste/nonhaz/municipal/web/html/>

³ <https://www.biocycle.net/2016/11/10/fresh-look-organics-bans-waste-recycling-laws/>

In a pie chart delegating 2006 domestic systems-based greenhouse gas emissions, the EPA lists the provision and disposal of food and goods as generating 42% of all greenhouse gases.⁴ Composting reduces emissions of the greenhouse gas methane compared to landfilling, and compost additions to land help build soil carbon. When thinking about reducing our carbon footprint composting should therefore be one of our top priorities. Composting can be a solution for many of Juneau's problems--from conserving landfill space, to reducing emissions, to helping create more food security.

How is your product or service different and better relative to other products or services addressing the same problem or need?

There are currently no other food scrap composting services in Juneau. The CBJ listed composting as a solution to the landfill problem in the late 1990s, though nothing has been implemented. The Recycleworks division has been taking recent steps to create a city-sponsored compost program and has reached out to Juneau Composts as a potential partner in the project.

The bagged and bulk compost that is sold in town is all shipped in from elsewhere, and there is a large waitlist for Juneau Composts's product. Customers include garden supply centers, landscapers, and individuals. In germination and seedling test trials this spring Juneau Composts' product outperformed DR Earth's Organic Compost, which many consider to be a premium product. The CBJ Commission on Sustainability outlines food security as a top priority, and Juneau Composts is poised to support our community's growing agricultural sector.

Social & Conservation Concepts

How will the business contribute to the conservation and sustainable use of natural resources and how will this be measured?

Juneau's "trash" is actually one of its resources. By transforming local organics into finished compost we can build soil for our gardens and farms, which is a commodity in high demand. Composting goes beyond conserving what we have: it actually produces something that was not even there to begin with! We live in a precariously food insecure place, and small scale gardening can significantly supplement fish, wild game, and foraged plants in the quest for local food. Many crops can be grown in a simple mix of compost and sand in pots or raised beds.

Perhaps the biggest obstacle to commercially producing food in Juneau is the lack of land and soils available. Most of Southeast is not like the Interior of Alaska, where simply removing existing vegetation reveals a soil bed suitable for farming. Even when land is

⁴ <https://www.epa.gov/sites/production/files/signpost/cc.html>

cleared here, there is nothing for a farmer to start planting in. Juneau's food production relies primarily on raised bed and high tunnel construction, both of which use expensive imported soil, compost, and fertilizers. Locally manufactured compost would significantly increase accessibility and opportunity for small scale farming ventures.

Composting also indirectly benefits our natural resources by decreasing landfill usage. This means less methane gas would be produced and fewer foul odors would emanate through Lemon Creek. Since most paper could be composted rather than recycled in the lower 48 or abroad, our fossil fuel dependence would also decrease. Moreover, less garden soil and fertilizer would have to be shipped in to Juneau, and in turn fewer heads of lettuce and bags of carrots as well. Composting is starting to feel like the gift that keeps on giving!

Through a more general lens, the process of composting is a regenerative process. It uses microbial life as fuel, builds and enhances soil, protects our watersheds, and even has bioremediation capabilities.

To measure Juneau Composts' conservation and sustainability, data is recorded all along the way: volume and weight for all organics collected, and volume and weight for finished compost produced. Running totals of all material diverted from the landfill are provided to customers each month. Customers can feel and know the impact of their efforts and may be inspired to encourage others to participate in the program. Businesses receive their own personalized set of numbers that reflects their actual waste diversion. They can use that data to analyze their waste stream in the quest for waste reduction, and also use it as a tool to advertise their commitment to sustainability.

How will you ensure that revenue from the business stays in the local economy?

Currently, the money generated from food scraps supports the trash haulers and the landfill manager. While those companies have local employees, neither of them is locally owned, so much of the waste stream revenue is leaving the city. Juneau Composts is a 100% locally owned family business. While it is currently a small operation, we are looking to hire more local employees as we expand. We pay CBJ sales tax and buy our supplies from local hardware stores and gas stations. While our revenue is modest at this point, as the company grows so will our staff and expenditures.

With a composting service in our community the lifespan of the landfill will be extended. Constructing a new landfill or barging waste out would be delayed. Saving tax dollars on these things could be considered money earned for the community. Additionally, the compost manufactured will keep money circulating in our community, It will also have a ripple effect as the number of food producers and processors grows.

As Alaska looks to diversify its economy and curb its reliance on fossil fuel and other resource extraction, Juneau Composts is ready to assist through expansion and provision of useful, year-round, living wage jobs. Based on our current calculations, every 300 households enrolled could support 1 full time position at \$15/hr. Looking at long-term

expansion goals, if all of Juneau's 11,500 households were enrolled in composting service, upwards of 38 jobs could be created at Juneau Composts. Even more promising is the additional jobs that would be created in the local foods and landscape industries.

How will your business contribute to the development of leadership and self-determination in your community?

As part of the pilot project I did a lot of community outreach. From doing presentations at schools to writing articles for the Master Gardeners newsletter, to keeping a blog of my own adventures in composting and sustainability. Juneau Composts has continued in that vein by providing compost consultation and education to dozens of individuals, businesses, organizations, and schools. Last fall I worked with the Lemon Creek Correctional Facility to set up a compost system for their garden. Over the winter I mentored a middle school student who set up composting for the Juneau Community Charter School, and together we ran a booth at the STEM Coalition's Family STEM Night. I have been invited to give "how-to" talks on home and community composting in both Juneau and Haines. Juneau Composts has a strong online presence and maintains a Facebook page for to highlight landfill diversion numbers, provide environmental insight, and share national compost news, all with the aim of urging people to scrape their plates in the right direction.

Juneau Composts aims to work with local food producers of all scales. We are currently working with the Juneau Community Garden to improve their onsite composting. We are also providing space for Panhandle Produce, a local food producer, to erect a high tunnel so they can expand their operation.

Additional information

Current state of development

Juneau Composts launched its compost processing service April 1, 2017. We have grown to 120 customer accounts, 10% of which are businesses/organizations. We collect and process material twice a week, manage materials two days a week, and periodically work on developing the compost site. The summer-time goals for 2018 are to put up infrastructure to allow for more efficient composting times and to accrue more customers so we can commit to a regular employee position. We also want to put the final touches on the school fundraiser program so it can begin in the 2018 school year.

Ownership and management team composition and relevant experience.

The business is owned and operated by me, Lisa Daugherty. I have experience with the logistical and financial aspects of running a business, as my husband and I are self-employed commercial fishermen. I have sustainable agriculture research experience as a student

