

Autrey Property

Jacob Springs Farm Bid Submittal Section

1. Please describe the operation you propose for this property...

Jacob Springs Farm proposes to use the Autrey Property to expand operations of our diversified local farm. We would like to manage the property to produce high quality legume hay for our dairy, to produce local small grains, primarily wheat, for the Colorado Grain Chain and especially our partner Moxie Bakery in Lousiville, and also for grass hay and as supplemental pasture.

Organic Wheat/Legume Hay: On 98.6 acres of the Autrey property that are north of the McGinn ditch, we propose a four-year rotation with 25% of the ground being sown to hard wheat and 75% to high quality legume-dominated hay, principally clover and alfalfa. This rotation has been shown in other operations to be capable of regeneratively increasing soil organic matter when combined with applications of dairy manure. Recognizing these fields as important viewshed, we propose to keep them in good visual condition.

To minimize tillage, each year, we propose to disturb only the 25% of the ground that is sown to heirloom varieties of wheat. Plowing and discing it before planting and low-till sowing it to a mix of legume hay crops in the fall after each harvest. We never use any kind of herbicide or pesticide on any of our crops, not even “organic approved” applications, we choose to focus on soil and stand health and take our knocks, if any.

After harvest we will run our eggmobiles on the wheat fields to improve fertility, recover grain spilled by the combine and predate insects. A mix of species will be selected to support cattle nutrition, nitrogen fixation for soil fertility and to support native pollinators. This mix will be low-till planted (at our own expense) after wheat in rotation including perennial and annual legumes, and forbs. The annual legume will introduce diversity and reduce seed costs in year one allowing alfalfa room to “grow-in” for years 2 and 3 of the cycle. This will keep the vast majority of the soil covered, minimize soil disturbance, maintain a healthy crop diversity and rotation and maintain a high percentage of living root in the ground year-round. In the winter we may integrate feeding of dry livestock over the wheat and legume fields to improve soil texture and germination, improve fertility and introduce positive animal impact. We would haul water from our well nearby to support this grazing and keep fencing in good condition.

In the early spring each year we plan to spread 10-20 tons of organic manure per acre on the 25% that has been recently planted to legumes to improve soil fertility and aid in germination. We propose to irrigate the fields each spring, with minimal irrigation of recently tilled fields to minimize soil erosion and

more aggressive, quick sets on perennial fields. We commit to maintaining irrigation infrastructure in good condition,

We propose to work with OSMP staff to identify the portions of these fields where Bobolink have been observed to be nesting for exclusion from tillage and mowing.

Example Rotation:

Year 1, Wheat Crop: Tilled and planted at 100 lbs per acre, harvested in July followed by eggmobile

Year 2, Legume Establishment: Heavy application of well composted organic manure followed by low-till seeding of alfalfa and perennial clover in the fall of year 1 mixed with annual legumes and selected forbs. One late cutting of high-quality dairy hay is expected in the establishment year.

Year 3, Nitrogen Building: Two quick cuttings of high quality legume hay are expected

Year 4, Nitrogen Building and Restart Year: Two quick cuttings of high quality legume hay are expected, after which manure may be spread, and wheat planted in the fall

Grazing and Grass Hay: for the portion of the property south of the McGinn ditch, we propose to continue to manage the hay ground as diverse fields, aiming to maintain and increase biodiversity. We are Bobolink-sensitive managers, excluding both grazing and mowing from Bobolink areas between April 15 and July 15. These fields might also be used for aftermath grazing. During periods where vegetation is growing, we would aim for a maximum of two weeks of grazing in any one area to protect biodiversity and vigor of plant communities and to support native pollinators. These fields will be well irrigated each spring.

2. Please describe your agricultural background and any existing agricultural enterprise(s). Include general location information, and the years of experience implementing the agricultural practices you have proposed.

My Background



I have over 25 years experience in Boulder County Agriculture as both a farm hand and a farm manager. I have extensive experience in regenerative grazing going back to 1996. I am an expert in the fields of development agriculture, mostly in Africa and in water resources (CU-Boulder 2002). I founded Jacob Springs Farm in 2010, Jacob Springs is less than a half-mile, entrance to entrance, from the Autrey Property over the road.

I founded Sambah Natural, a co-op of nearly 1,200 farmers in rural Zambia in 2003, I have been the president of the Cottonwood Ditch Company since 2013. I've been a consultant for agricultural projects around the world.

I am a first-generation immigrant born during the civil war in Beirut, Lebanon. My family immigrated to the Boulder area in the early 80's when I was in grade school.

Coming from a war-torn country at first I found a refuge in working on the Niebur farm (neighboring the Lewis Property to the West) from a young age. Jay Niebur, who was the president of the Enterprise Ditch Co. and a capable farmer and stockman, trained me in irrigation, training horses, operating farm machinery and other farm skills starting in grade school. I fell in love with agriculture and threw myself

into it beginning to keep bees, chickens and goats of my own starting around 5th grade and continuing until I graduated from High School.

I went to Douglass Elementary, Nevin Platt Junior High School (now middle school) and graduated with honors from Fairview High School in 1996. Seeking out opportunities in agriculture I won a full scholarship to Deep Springs College - a school with a huge BLM allotment and a cattle herd. I completed my studies as a double major in Music and Civil Engineering (Water Resource Management) at CU Boulder.

Prior to College, I also sought out opportunities on other farms around the world spending at least 2 months on each of the several farms (listed below)

Haying and Wheat Capacity and Experience

I worked for local farms for several summers as general labor including for hay season. I managed my first haying operation in 1997 on 160 acres of dairy quality alfalfa at Deep Springs ranch near the California - Nevada border. Last year we put up 11,000 bales of hay on properties all over Boulder County.

I have been growing small grains since 2012 with experience both here, in Colorado, and counter-seasonally in Zambia and Lebanon. I am a founding member of the Colorado Grain Chain. Last year we produced 22,500 pounds of small grains on around 10 acres.

Irrigation Experience

I first learned to irrigate in 4th grade working with my mentor, Jay Neighbor, who was also the president of the Enterprise Ditch. I was so enthralled with water that I decided to make it the focus of my college education, studying Water Resource Engineering at CU. Since then I have designed and build several community irrigation projects in developing countries. I have been the president of the Cottonwood Ditch company for the past 5 years.

Education

I have been active in educating the public on the practical and theoretical aspects of regenerative agriculture. I regularly speak to classes in the CU Engineering School, the Sustainable Food Systems program and with Engineering for Developing Countries. I am a frequent guest speak at conferences and enjoy going in-depth with farm interns

Farm Tech

I launched Agronimo, in summer 2014, at Jacob Springs Farm. A loose organization of farmers, makers and tinkerers, Agronimo seeks to overthrow the conventional structures of agricultural technology through the development of open-source software and hardware that directly benefits sustainable, smallholder farms. By creating open platforms in areas like automation, agricultural monitoring and field data collection, farmers can access technological innovation previously thought to be too expensive or inaccessible for anyone but the largest farms to utilize. Community-based development of these platforms makes them more responsive to farmer need, and keeping platforms open-source allows for customization and improvement of technology.



One successful initiative I have been involved with is the “BuzzBox” by OpenSource Beehives, a IOT monitoring solution that allows beekeepers to monitor hive health remotely and uses machine learning and audio data to detect when bees have been exposed to harmful pesticides.

Farms where I did internships:

The Thompson Dairy - Milking 250 cows near Ithaca, Upstate New York

The Kennel Farm - 640 acres of corn, soy and cattle near Peoria Illinois

La Ferme D’Aigrefoin - 25 acres of potatoes and cut flowers on a home for mentally handicapped adults in Saint-Remy-Les-Chevreuse outside Paris, France

Deep Springs farm and ranch Along with various part-time farm jobs and animal training gigs, I spent 2 seasons on the **Deep Springs** farm and ranch with 600 head of cattle on 200,000 acres in Deep Springs California and Dyer Nevada - **season one** was on the general farm crew with additional responsibility for 50 replacement heifers and 30-40 bulls. **season two** I managed all aspects of producing 160 acres of Alfalfa, potato and onion fields and was the student farm manager.

3. Describe your proposed vegetation and soil sampling protocol or observations and how you will use this information to adapt and modify management practices.

On cropland, we intend to sample soils in each section annually and track progress against goals zeroing in on soil organic matter. On grass hay fields we walk fields occasionally to gauge biodiversity and keep detailed notes on species that are present.

4. Describe how the City of Boulder agricultural land you are proposing to lease improves the viability of your existing agricultural operation or improves agricultural stewardship of your existing property(ies).

Our micro-dairy operation has grown significantly in the last couple of years since we were awarded the Lewis property. One deficiency is the availability of high quality legume hay to support the nutritional needs of high-production dairy cows, since diverse high-quality organic legume hay is rarely available in our area, we have trouble meeting our cow’s nutritional requirements and production is less than optimal as a result. Managing the Autrey property as proposed will produce enough high-quality legume hay to support the needs of our cows and also leave us with a surplus to sell to local contacts, such as Golden Hoof farm, who have expressed an interest in purchasing that from us for their own dairy cattle.

The potential for winter feeding our dry herd at the Autrey Property provides some relief and lowers the impact on the Baseline/75th/Lewis complex of properties. It would help us to improve our winter management of our sensitive riparian areas. At our home farm we have ample water rights and supply to haul water for any cattle there and we have an extra F350 flatbed ready to be dedicated to that task.

Our local Colorado Grain Chain chapter is the most active and innovative in the network, and is well underway in realizing the goal of a comprehensive, self-sufficient, re-localized foodshed. Our local

bakery, the award-winning Moxie Bakery, is less than 2.2 miles away from the Autrey Property. Moxie has been expanding in recent years with new locations in North Boulder and in Lyons. The Autrey property would allow our farm to meet Moxie bakery's need for high quality wheat - and this represents an amazing financial opportunity for us.

5. Describe your ability to finance the implementation of your proposed operation. Include information regarding any necessary capital or operating loans that will be required. Please describe how and where you will market the products grown on the property.

	Expected harvest	Price	Value
Organic Wheat	55,000 lbs on 25 acres	\$1/ lb	\$55,000
Organic Legume Hay	3,000 bales on 75 acres	\$10/ bale	\$30,000
Organic Grass Hay	4,000 bales on 73 acres	\$9/ bale	\$36,000
Total before expenses			\$121,000

Moxie Bakery's need for high quality, organic, locally sourced grain is so great that they have given us agreements to pay an exceptional \$1 per pound for cleaned wheat for the next three years. This is an enormous opportunity for us to meet that local need and this story would be a fabulous feather in the OSMP's cap as well as a significant source of income for Jacob Springs Farm. Our farm would commit to using the entirety of this income to pay the salary for an Assistant Farmer position (this person + any family would likely be housed at the Stengle-King homestead once it's been renovated) This position would greatly improve the viability of our farm, assist with our goals of training and equipping a new generation of farmers and provide management and labor resources to handle the additional workload.

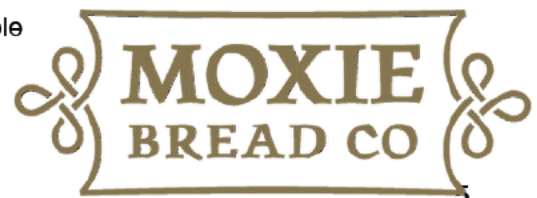
Based on the cost and yield numbers from 2021, we estimate this wheat proposal on Autrey property to provide \$55,000 in income annually. However, our guess is that this estimate is low, since the reference acreage was of a much lower quality than the Autrey property can provide

Managing this property will not require any additional significant investments in equipment and we already have seed on hand to plant the acreage.



Wheat and small grains: Jacob Springs Farm is a member of the Colorado Grain Chain, an alliance of locally-owned and-operated farmers, millers, bakers, brewers, distillers, chefs and consumers that produce and support grain and grain products from heritage, ancient and locally-adapted grain. With our close partnership with Moxie Bread Co, we began growing Hard Red Winter Wheat to support their local demand. Moxie has committed to buy all the bread wheat we can foreseeably produce at favorable prices, as

long as it meets quality standards. We also have an of taking strategy for the wheat which does not meet standards. We have an arrangement with Fehringer Farms (makers of premium, organic poultry feeds) to supply us with a poultry premix to which we will add our substandard wheat and use it for our own layer flock as well as make it available to backyard chicken keepers through the county through our self-serve, members only grain co-op (which we have been



operating for 9 years - we can sell up to 6 tons of grain this way per month.)

We have also marketed some of our barley to local brewers in partnership with Boulder Fermentation Supply.

In order to expand our small grains program, we acquired and are restoring some older grain planting and tillage equipment and have aspirations to acquire our own combine. Until then we have an offer from another local farmer to assist us with the combine portion of the harvest.



The Colorado Grain Chain has built a community access flour mill where we bring our wheat for grinding into flour so that we can offer this a value-added flour product at our farm store as well as to other retail and wholesale customers.

We are excited to be at the center of this unique and critical development in our local food system. Growing Winter

Wheat on the diversified cropland portion of the Autrey will enable us to grow to meet some of this demand, and involve Boulder OSMP lands in this exciting story of the growth of a relocalized food economy.

6. Please describe any kind(s) of infrastructure improvement(s) that you envision for the property.

None are needed

7. Please describe the machinery and equipment needed to implement your proposed grazing and vegetation management operations on the property and how you will meet those needs, e.g.: own, lease, borrow, hire custom, etc. Please only list or describe the machinery or equipment you will be using on the property, e.g.: seed drill, portable corrals, temporary fencing, etc.

We have all the equipment needed to operate this property. For the wheat program we have a Tillage tractor: a 130 hp John Deere 4520 with a John Deere three bottom plow. (as well as a backup option, two bottom plow for our 80 hp John Deere 4020 tractor and a one bottom plow for our 40 hp John Deere 1070) We have a 20' disc and a 12' disc that can also be used with any of our three tractors. We have a land leveler that we don't anticipate needing for this property. We have a 16' John Deere Van Brunt seed drill and a John Deere 95 combine (recently renovated) for harvest with both a 20' direct cut header and a Sund pickup header (for use in combination with our Massey Ferguson 36 14' self-propelled swather if weed pressure is high) - we have grain bins capable of receiving about 2/3 of the anticipated crop and we are working with Moxie and the grain chain to acquire the additional needed storage capacity. We are hoping to acquire a gravity wagon grain tender to make things easier but we can manage the property even if we can't find this equipment.

For haying we have the three tractors and swather mentioned above in addition to two hay rakes, a High-Speed John Deere Moco 946 mower conditioner, and two New Holland 1049 stack wagons, one acquired last summer and one recently rebuilt. WE also have a backup 1010 stack wagon, a 40' flatbed hay trailer and three Ford F350 flatbed pickups to assist with harvest and haulage.

8. Are you involved in your agricultural enterprises on a full-time basis? If not, what percentage of your time is dedicated to agricultural pursuits? Yes, I've been a full-time farmer for 12 years.

9. Please provide any information pertaining to your eligibility as a U.S. Department of Agriculture historically underserved producer.

According to the USDA's NRCS Limited Resource Farmer/Rancher FY 2022 Self-Determination Tool I am eligible as a Limited Resource Farmer/Rancher based on my income and gross farm sales AND as a Socially Disadvantaged Farmer or Rancher based on my national origin as an Asian.

10. What is your proposed per acre bid for this property?

We propose a total price of \$70 per acre for a total annual rent of \$12,110

11. Please describe your pay and employment practices and how you have provided farm goods to disadvantaged communities or mentored first generation farmers.

Jacob Springs Farm is committed to progressive pay for farm workers. We provide a minimum compensation of \$15 per hour plus opportunity to profit share for all farm employees.

Our farm has something of a specialty in providing products to many minority communities within Boulder County, we have provided livestock and slaughter facilities for Kosher slaughter - having hosted 21 Rabbis for a slaughter class, and Halal slaughter especially for the Ramadan festivities for Lebanese, Moroccan, Bosnian, and Saudi families, among others. We have worked closely to produce meat and vegetables for hispanic and Hmong communities and we have provided milk and urine to Nepali communes for their religious rites and festivals.

Additionally we host and mentor a variety of international and minority farmers, currently our farm is host to AfroRoots Farm - mentoring and providing them with greenhouse facilities and land.

We also work with Colorado-based "The Women's Bakery" in consulting and training their staff in Wheat production to assist in their mission of producing high-quality nutritional products to under served African communities.

Our goals in this regard are to help to make local food accessible to all and to correct historic land access injustices.

Provide personal references that are familiar with your agricultural experience including the following, as possible. Please provide only names and contact information. Do not include reference letters as part of your submission.

o Two neighboring landowners to proposer's current operation;

Wynn & Ryan Martin: Landowners near the Methvin property - [REDACTED]

Jason Thurston: Landowner near the Lewis property - [REDACTED]

o A landowner who leases or has agreed to allow proposer to use their land;

Matt Carlson; Senior Pastor of Boulder Valley Christian Church - [REDACTED]

We have cut hay and grazed cattle and pigs on 30 acres of the church's property off South Boulder Road for several years.

o A ditch rider, lateral captain or water commissioner who has worked with proposer on their current operation;

Mike Munson; Farmer and Cottonwood Ditch Board - [REDACTED]

o A customer or buyer of proposer's current agricultural product;

Andy Clark; owner of Moxie Bakery and customer - [REDACTED]

Other

Kathy Tenenbaum; [REDACTED] neighbor to the West. Serving on the Board of the Ditch Company together for 7 years.

Name: Andre Houssney **Date:** March 6, 2019

Email address and Phone #: [REDACTED]

PROPOSAL FORM- REQUIRED

Failure to complete, sign and return this signature page with your proposal may be cause for rejection.

Contact Information	Response
Company Name including DBA	Jacob Springs Farm
List Type of Organization (Corporation, Partnership, etc.)	LLC
Name and Title of Person Authorized to Contract with City of Boulder	Andre Houssney
Name and Title of Person Submitting Bid	Andre Houssney
Email Address for Person Submitting Bid	[REDACTED]
Company Address	[REDACTED]
Company Phone Number	[REDACTED]
Company Website	jacobsprings.com
Company Fax Number	none

By signing below I certify that:

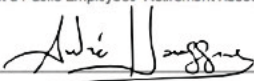
I am authorized to bid on my company's behalf.

I am not currently an employee of City of Boulder.

None of my employees or agents is currently an employee of City of Boulder.

I am not related to any City of Boulder employee or Elected Official.

I am not a Public Employees' Retirement Association (PERA) retiree.



Signature of Person Authorized to Bid on Company's Behalf

Feb 14, 2022

Date