CITY OF JOHN DAY
CITY COUNCIL MINUTES
JOHN DAY, OREGON

August 1, 2017 **Adjourned Meeting**

COUNCILORS PRESENT:
Paul Smith, Councilor
David Holland, Councilor
Steve Schuette, Council President
Gregg Haberly, Councilor
Ron Lundbom, Mayor
Donn Willey, Councilor
Lisa Weigum, Councilor

COUNCILORS ABSENT:

STAFF PRESENT:
Nicholas Green, City Manager
Aaron Lieuallen, Public Works Senior PM

GUESTS PRESENT:
Dale Rininger, John Day
Sherrie Rininger, John Day
Shannon Adair, John Day
Rylan Boggs, Blue Mountain Eagle

Agenda Item No. 1 – Open and Note Attendance

The John Day City Council meeting opened at 6:00 p.m. Mayor Lundbom noted Councilor Haberly was absent but he arrived shortly thereafter.

Agenda Item No. 2 – Appearance of Interested Citizens

Mayor Lundbom welcomed visitors in the audience.

Agenda Item No. 3 – Controlled Environment Agriculture Study Session

City Manager Green discussed the options for creating a pilot greenhouse, including operating expenditures and capital expenditures. He discussed using a test-validate-scale business model and this initial investment would become our test facility. He explained we are essentially creating a startup enterprise. It would operate within the parameters of our Sewer Fund. Any profit that accrues from the startup would accrue to the Sewer Fund or would be used to scale the next set of greenhouses, but the idea is that any free cash flow that we generate from the greenhouses would be used to offset the operating expenses of our new sewer treatment plant. The bonus to our residents is that they get to purchase fresh, locally grown produce – but there is risk with any new venture. Green said Senior Project Manager Aaron Lieuallen will walk the council through the options for the greenhouse design, build and operations, and then he will discuss the risks and rewards associated with the proposal and the next steps to implement it if the council chooses to.

Senior Project Manager Lieuallen presented a brief to the Council on the history of hydroponics, the climate and environmental suitability to deploying controlled environment agriculture in John Day, the operating and capital expenditures and finally various models for greenhouse design.

Councilor Schuette asked for confirmation that we would start with fresh drinking water and asked where that would come from. Councilor Holland stated there are two options: a 10-inch water main that runs along the future route of the 7th Street extension past the OTECC and ODFW facilities that ends on the Oregon Pine property, and another line that runs east to west along the north side of the Iron Triangle property.

Mayor Lundbom asked about nutrient loads and how the water will be fertilized. Lieuallen responded that initially we will have to use a nutrient injection system based on a water analysis of our fresh water and the nutrient demands for each crop type. However, this analysis will have to be performed for the reclaimed water and the nutrient content of the reclaimed water after the new treatment plant is built.

Lieuallen stated the site where we are looking to build is level and compares favorably to other areas like Ontario, Canada, where hydroponics is in high use. Ontario produces 98% of Canada's greenhouse tomato crops and Canada is the main provider of greenhouse tomatoes to the United States. Lieuallen showed the council that John Day's climate, solar radiation and temperature range are all more optimal than Ontario's for controlled environment agriculture, but we have the advantage of being closer to the Pacific Northwest as a local market, so we can harvest later and the shelf-life will be longer.

Lieuallen discussed pros and cons of vertical versus horizontal farming systems. Vertical systems require additional lighting but work well for vine crops. Horizontal systems are optimized for leafy greens. However, some of the variation depends on greenhouse size, the manufacturer and their preferences. Lieuallen said we will evaluate both options based on our crop selection and climate parameters and we may select one vertical system and one horizontal system.

Council asked how the temperature and humidity are controlled. Lieuallen stated it is a computerized system that controls factors such as temperature, light exposure and humidity through shade systems and by controlling fans and vents in the walls and roof. Green said geothermal designs are also an option to normalize temperature swings between summer and winter. The climate is optimized to the growth requirements of the crops and we may select designs that allow for multiple climate zones.

Lieuallen said our intent is to source 100% of the produce our local grocers purchase annually as well as small quantities of herbs and specialty crops they may not sell in large quantities but that customers like. The produce is the cash crop and the other products would provide value but in smaller quantities.

The pilot greenhouse would be on the scale of 5,000 – 6,000 square feet, depending on who we source the greenhouse and systems through. Local grocers, restaurants, the school district, hospital and other wholesale customers would use the majority of the produce from this facility, but there would likely be excess production. Our conservative estimate is the facility will grow 1,200 pounds of produce per week. The scale model will not maximize revenue but it will take advantage of our existing market. We will engineer the systems to match the quantities our wholesale customers purchase.

Lieuallen said we would also like to create a visitor center area connected to the greenhouse so it can become an educational tool, an academic tool and a site that can be used for agritourism and research. Green said we want something that is appealing and inviting to residents with a digital display so they can see the layout of the facility they will tour and what their tax dollars purchased, and then take them on a tour of the facility. The same approach will be used for potential investors. As we look to scale the facilities with reclaimed water, investors will be able to touch and feel the produce in the pilot scale facility and see how the farming systems work. Lieuallen said the pilot greenhouse will never be as efficient as the scale model, but it will serve its purpose and produce over a dozen different crop types.

Councilor Willey pointed out that our consumers will like the idea of buying locally grown produce but asked if there is an option to sell it locally at a reduced cost to the consumer. Lieuallen said their goal is to run the initial facility at current wholesale prices, but as we improve our design and systems if we can maintain the margins for our grocers and sell at a lower wholesale price then those cost savings can be passed on to our consumers. Green said the scale facilities will also achieve cost efficiencies that the pilot scale facility will not have and they may also help us to normalize prices across seasonal variations. He said that certainly should be one of our objectives, how much cost savings can we pass on to our residents, but what we sell for export should follow the market prices.

Green said the cost to the consumer will also be driven in part by how much of the capital expenditure we have to incur and how much we can get investors to incur. If we can get grant funding to cover the majority of our capital costs, then more money can be put into the operating expenditures and the facilities will generate more free cash flow.

Lieuallen showed the council the proposed location for the greenhouse, which is on the northeast end of the Oregon Pine property, just west of the City's current percolation ponds. It would take up less than a quarter-acre footprint and the location allows room to scale to the east or the west if the business model supports expansion. It also provides adequate separation from the proposed reclaimed water facility site. Green said it is possible once the site is leveled that the proposed location will also be above the 100-year regulated floodplain and the City's surveyor will be evaluating those elevations.

Green said a proposed access road on the north side of the Oregon Pine property line could be created to export produce harvested from the greenhouse without impacting pedestrian or vehicular traffic on the future 7th Street.

Lieuallen discussed capital expenditures, which are estimated at $250,000 - $350,000 to construct the greenhouse, with approximately $50,000 in site preparation costs. This does not include the cost to extend water to the facility. Water could be heated and cooled using a geothermal system to normalize the temperature. An Agribusiness Project Manager would be responsible for managing the venture and a Head Grower would be hired once the greenhouse is in construction. The Head Grower will have a background in horticulture and will focus on maximizing yields. Volunteer labor could be used to reduce the operating expense and local volunteers could be paid in produce.

Green said we need an eight-month window for planning and research. If we choose to proceed, a final design will be selected by March 2018 and construction will begin in May or June. The greenhouse will become operational by next summer and the first harvests will be realized next fall.

Green said he has discussed the project with the Governor's Regional Solutions Team and other potential investors, all of whom have shown interest. He and Lieuallen are also traveling to Corvallis in September to present the proposal and the Innovation Gateway to Oregon State University. If we can syndicate the investment pool and the risk on the capital expenditure then we can reduce the amount of capital we have to collateralize. This proposal fits well with other investments OSU is planning to make in our region. In the coming months, this could potentially lead to the expansion of a campus and/or academic research facility at the Innovation Gateway.

Green said Sustainable Water has worked extensively with Rough Brothers, one of the greenhouse suppliers we are evaluating, and they will work with us as part of the upcoming feasibility study to evaluate reuse options.

Green said if the Council wishes to proceed with the initial investment, he has drafted a modified budget to the Sewer Fund. The new budget adds Department 111, an Agribusiness Department, which budgets

$88,000 for personnel and $17,500 for materials and services. The personnel cost will cover an Agribusiness Project Manager full-time for the next 12 months and a portion of our project management time. At the end of Year 1, we would hire the Head Grower and his salary as well as that of the Agribusiness Project Manager will be covered by sales of produce generated by the greenhouse. The upfront cost of $105K is the initial investment required and it equates to about 14% of the net working capital in the Sewer Fund.

Green said he will work with potential investors for the capital outlay and we would budget for our share of that cost in next year's budget, however, his goal is to reduce that capital cost as much as possible through external funding. He is looking at academic investors, non-profit organizations, for profit investors using Community Reinvestment and Recovery Act (CRRA) funds, and the public sector. He said he would treat it like any new startup and try and oversubscribe our seed round of funding so we have the lowest cost of capital possible and the best terms possible for the new facility. The initial $105K investment is the operating expense needed to ensure we launch next year and stay on schedule for a 2018 fall harvest.

Mayor Lundbom asked if we could use the Community Development Investment Fund for the capital cost. Green said that is an option but his initial goal will be to raise the funding externally. Councilor Schuette asked for clarification on the timeline for the treatment plant construction. Green said we hope to have the facility designed by 2019, in construction by 2020, and operational by 2021. Councilor Smith asked if the investment is warranted even without the reclaimed water plant. Green said there is still a need for local produce and we can satisfy that need using freshwater and the land we have acquired, so the investment still makes sense for the pilot scale facility, but it probably would not make sense to scale beyond that if we do not have the reclaimed water as an input. Councilor Holland said that the cost and technology to treat wastewater to Class A is not much more expensive than Class B. Changes in policy could also drive us to a higher treatment class and since we have to make it clean enough to put in the river DEQ is not likely to restrict our use in the greenhouses.

Green said what may become a limiting step is our ability to establish a market for crop exports and/or our ability to entice established growers to our community to set up their own operations. How the market responds to a new entrant or a disruption in the way crops are delivered will determine the scale of our enterprise more than the technology or water availability.

Green said the Agribusiness Project Manager is an essential position because it specializes in the economics of the business model and he is stretched too thin to do that job and manage the city. The Head Grower will also be an essential role once we have a facility established to concentrate on the seed propagation, growth parameters, harvesting, packaging and distribution. He said the budget modification will allow us to hire the project manager position now and will keep us on schedule. The City has also identified a candidate, Matt Manitsas, who recently graduated with a degree in Agribusiness from Oregon State and who is from John Day and willing to relocate here. Council concurred this is likely the only way we can determine if this is a viable venture and if it is going to work for the new treatment plant.

Councilor Schuette moved to modify the budget to allow for $105,750 in operating expenditure from the Sewer Fund. Councilor Willey seconded and the motion passed unanimously.

Councilor Willey moved to begin the pilot project and proceed with the greenhouse planning. Councilor Haberly seconded and the motion passed unanimously.

Adjourn

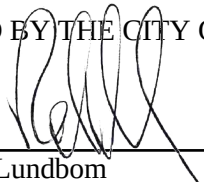
There being no further business before the Council, Councilor Schuette moved to adjourn the meeting. Councilor Willey seconded and the session was adjourned at 7:35 p.m.

Respectfully Submitted:

Nicholas Green

City Manager

ACCEPTED BY THE CITY COUNCIL AUGUST 8, 2017



Mayor Ron Lundbom