

March 19, 2018

To: General Purposes Committee, City of Richmond

From: Dr. Kent Mullinix, Director, Institute for Sustainable Food Systems, KPU
Dr. Rebecca Harbut, Chair, Department of Sustainable Agriculture & Food Systems, KPU

Re: KPU Research and Teaching Farm At Garden City Lands: Planned Actions and Activities for 2018

Summary

The City of Richmond and KPU executed a lease agreement for a 20 acre parcel on the Garden City Lands in June 2017. This farm, which will be certified organic, will be used by agriculture students and faculty to carry out research, teaching and outreach activities. KPU has been working with the City of Richmond Parks Staff to ensure the site is suitable for sustainable (ecologically sound) agricultural production. Upon completion of soil amendment occurring in the coming months, which will increase the soil organic matter and nutrient composition, we will begin production and infrastructure. This report is to update council on plans that KPU has for the site during the 2018 season on the first 6 acre parcel and future use (see attachment 1).

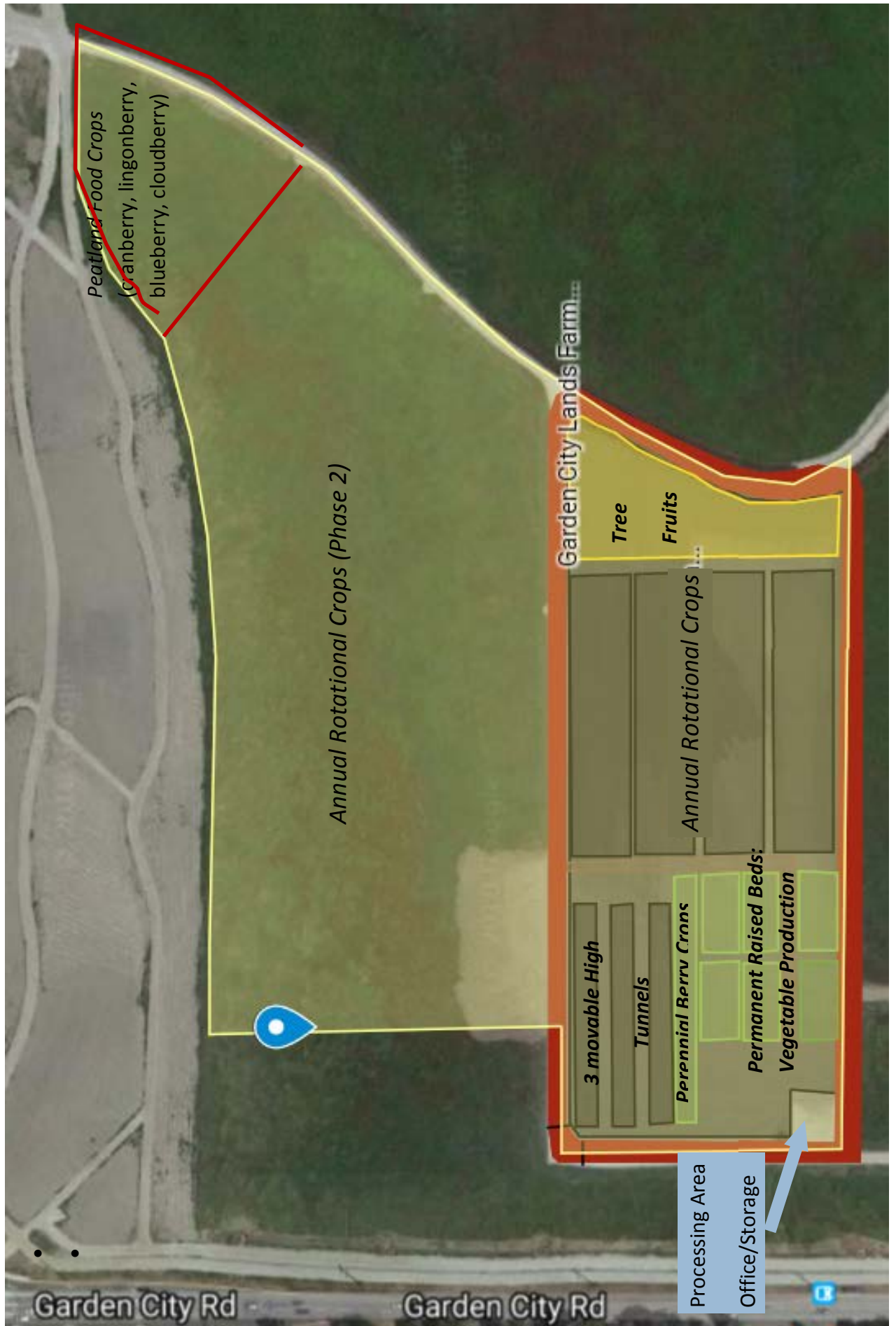
Infrastructure Development

- Irrigation System – installation of an irrigation system to provide irrigation to a 6 acre parcel. The systems will be built to accommodate the changing needs of the farm and the unique requirements associated with research projects.
- Moveable High Tunnels – high tunnels are temporary polyethylene covered hoop houses (approx. 20' tall by 30' wide, by 60' long) that provide a protected environment to lengthen the season for production and for controlled experimentation. Three tunnels will be installed on the site summer 2018. (see attachment 2)
- Office/lab space – converted shipping container to provide a lab and farm operations office.
- Secure storage area – for tools and implements
- Processing area – a covered area to accommodate activities to prepare produce after harvest.
- Perennial beetle bank (refugia for agriculturally beneficial arthropods) and buffer plantings around the fields

Production Fields

- Establishment of vegetable crop production – The first area that will be prepared is a permanent raised bed vegetable crop production field to accommodate intensive vegetable production.
- Soil building cover crops – Crop fields in rotation and the tree fruit area will be planted to soil building cover crops this year. Cover crops will provide structure building exudates and additional organic matter which will be tilled into the soil in the fall to accommodate planting a winter cover crop. Cover cropping will also assist with weed management and allow time to learn more about the site from an agronomic and agroecological perspective.

Attachment 1: Map of KPU Farm At Garden City Lands



Appendix 1 – Examples of features to be established at the Garden City Lands



Figure 1: Moveable High Tunnel. Temporary agricultural structure to allow season extension. Image source: <https://www.rimolgreenhouses.com/>



Figure 2: Vegetable Processing Station – used to wash produce after harvest out of the field.



Figure 3. Permanent Raised Beds are built up and remain intact from year to year. Allows for improved soil structure, weed management and nutrient management.