



Parks, Recreation and Cultural Services Committee

Date: Tuesday, May 28, 2019

Place: Anderson Room
Richmond City Hall

Present: Councillor Harold Steves, Chair
Councillor Chak Au – entered at 4:03 p.m.
Councillor Bill McNulty
Councillor Linda McPhail
Councillor Michael Wolfe

Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Parks, Recreation and Cultural Services Committee held on April 24, 2019, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

June 25, 2019, (tentative date) at 4:00 p.m. in the Anderson Room

DELEGATIONS

1. Dr. Rebecca Harbut, Chair, Department of Sustainable Agriculture and Food Systems, accompanied by Dr. Michael Bomford, Faculty, Sustainable Agriculture and Food Systems, presented an annual report (attached to and forming part of these minutes as Schedule 1) on the Kwantlen Polytechnic University (KPU) research and teaching farm on the Garden City Lands and highlighted the following:
 - south half of the parcel had mineral soil deposited to be up above the contaminated native soil to allow for planting and the north half the field is yet to be developed;

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- the southern half has been divided into two sections, the market garden and three high tunnels and above that the cover crops;

Councillor Au entered the meeting (4:03 p.m.).

- a wide variety of cover crop has been planted in the cover crop area and different cropping combinations are being utilized to increase diversity within the cover crops;
- the KPU farm is in the process of being certified organic and are currently in year two of the three year transition process;
- the geodesic passive solar dome was built in five days last fall as a part of a kit and can operate completely off the grid, which is aligned with the KPU values of demonstrating agricultural practices that are conscientious of climate change concerns;
- final inspection of the dome is set for June 16th and once complete, will be finishing the perimeter beds and planting the interior of the space but the inside space will mostly be left open to be used for transplant production;
- striving to find long term ways to benefit all farmers in the community through the testing and development of agricultural technologies and high tunnels are valuable tools that extend the growing season with no additional energy use;
- once permits are granted for the other two tunnels, hoping to do a community building event for farmers to participate in the construction;
- will be developing a processing area with all stainless steel tables and sinks to go between the two shipping containers to provide a covered area to clean crops to take to market;

Councillor Au left the meeting (4:09 p.m.) and returned (4:11 p.m.).

- ongoing weekly farmers market as of this week will accept debit and credit payments;
- a twilight tour of the farm will be held the first Monday of every month from June to October to provide education to the community about the site;
- a sorghum plant labyrinth has been planted for the Farm Fest event on August 10th in the shape of the KPU “k” and the event will also include tractor and equipment demonstrations; and
- one student assigned every week to post about the farm on social media.

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In reply to questions from Committee, Dr. Harbut and Dr. Bomford further noted that:

- the July 1 twilight tour will most likely be held on the Tuesday to account for Canada Day;
- the moveable high tunnel can be moved manually with three or four people and there are strap anchors, which anchor to its track and also bearing lock blocks will be installed to anchor to the soil;
- soil samples were collected at one point in time from various locations, the test results over the agricultural threshold in appendix b are highlighted in red and generally these elements are not terribly mobile through the soil;
- the twilight tour length will be approximately one hour and large groups should be able to be accommodated;
- different activities are planned for Farm Fest including kids' activities, guided tours, and demonstrations on weed management; and
- one of KPU's environmental protection technology students is monitoring water quality on the site and KPU is looking to expand the scope it.

COMMUNITY SERVICES DIVISION

2. **UPDATE ON SUSTAINABLE FOOD SERVICE AT CITY FACILITIES AND EVENTS**

(File Ref. No. 11-7000-10-00) (REDMS No. 6167334 v. 4)

In response to queries from Committee, Gregg Wheeler, Manager, Sport and Community Events advised that (i) staff work with various food vendors for City events to promote the use of wax paper for food wraps as it is compostable, (ii) the largest events are held by the City and staff work to encourage various smaller events to provide various compostable materials and disposal containers to mitigate waste, (iii) staff are aware of the neighbourhood grants events program and can approach groups regarding sustainable food service at their events, and (iv) the cafeteria at City Hall does provide water jugs for various meetings and staff can work to encourage subcommittees and various groups who hold meetings at City Hall to avoid the use of water bottles.

It was moved and seconded

That the staff report titled "Update on Sustainable Food Service at City Facilities and Events," dated April 30, 2019, from the Director, Recreation and Sport Services be received for information.

CARRIED

3.

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3. **PROPOSED TIDALLY INFLUENCED TERRA NOVA SLOUGH UPDATE**

(File Ref. No. 06-2345-20-TNOV4) (REDMS No. 6160886 v. 10)

In reply to queries from Committee, Milton Chan, Acting Director, Engineering and Jason Ho, Manager, Engineering Planning, provided further information on the hydrology of the existing freshwater pond and water-flow management.

In response to additional questions from Committee, Alexander Kurnicki, Research Planner 2, and Jamie Esko, Manager, Parks Planning, Design and Construction remarked that when this report was originally updated a year ago it was reviewed by a biologist and engineer and the 2007 design was updated with cost estimate and reengineered to current standards. Staff further noted that the original plan was to have it open to the river and option 1 in the staff report would retain the slough as a fresh water pond.

Discussion then took place on (i) the potential for creating a destination site for salmon and sturgeon migration, (ii) reviewing options for implementing the original plan, and (iii) referring the matter back to staff to explore additional design options and sources of funding including federal.

As a result of the discussion, the following **motion** was introduced:

It was moved and seconded

- (1) *That Option 2: Create a Tidally Influenced Terra Nova Slough, as outlined in the staff report titled “Proposed Tidally Influenced Terra Nova Slough Update” dated April 5, 2019 for the Director, Parks Services, be endorsed; and*
- (2) *That staff be directed to explore (i) design options for the tidally influenced Terra Nova slough, including the original plan, and (ii) additional funding sources.*

CARRIED

In accordance with Section 100 of the *Community Charter*, Councillor Linda McPhail declared a conflict of interest as her husband’s family owns a memorial bench, and Councillor Linda McPhail left the meeting – 4:47 p.m.

In accordance with Section 100 of the *Community Charter*, Councillor Harold Steves declared a conflict of interest as his family owns a memorial bench, and Councillor Harold Steves left the meeting – 4:47 p.m.

Councillor Chak Au assumed the role of Vice-Chair.

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4. **TREE, BENCH, AND PICNIC TABLE DEDICATION PROGRAM REVIEW**

(File Ref. No. 11-7200-30-ADON1) (REDMS No. 6158916 v. 20)

Paul Brar, Manager, Parks Programs, in response to questions from Committee advised that:

- staff would work with program participants who experience financial hardship to set up payment plan for renewal fees or provide options for sharing a bench or table to reduce cost;
- staff have been in contact with as many of the 357 existing program participants as possible, some indicated that they would like to exit the program, others wish to continue and some are waiting to see how the process will be finalized;
- lifespan of a bench is approximately 10-15 years so many of the originally installed benches would have been replaced and a vast majority of those installed prior to 2003 would have been refurbished especially prior to the Olympics in 2010;
- the dedication program began in specific areas of the city but has expanded and any bench or picnic table in the city is available for dedication;
- the program was originally created to fund the installation of benches and picnic tables at new parks however, benches and picnic tables are now installed as a part of the construction of new parks; and
- when the program began there was no operating budget set aside for bench and picnic table repairs or replacement.

Discussion then took place on (i) grandfathering the 357 existing program participants with a renewal exemption with the option of a ten year extension or in perpetuity, (ii) creating a fixed term basis of 10, 20, or 30 years for new participants in the program and potential increase in dedication fees, and (iii) placement of new dedication benches and tables in newer areas and creating a list of available spaces.

As a result of the discussion, the following **referral motion** was introduced:

It was moved and seconded

That Option 2: 10-Year Renewal Exemption for Pre-2003 Program Participants as outlined in the staff report titled "Tree, Bench, and Picnic Table Dedication Program Review," dated May 1, 2019, from the Director, Parks Services be referred back to staff for further clarification and revision including:

- (1) options for fixed term lengths and renewal;***
- (2) a list of available spaces; and***

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- (3) *a review of the maximum number of plaques permitted per bench and picnic table.*

CARRIED

Councillor McPhail and Councillor Steves returned to the meeting – 5:17 p.m.
Councillor Steves resumed the role of Chair.

5. **MANAGER'S REPORT**

(i) *Update on Seniors Age Change Pricing*

David Ince, Manager, Community Recreation Services, provided an update to the change in seniors' age pricing and noted that promotion of the change started on May 17 and beginning June 1 current pass holders aged 55-64 can renew their passes as well as visit cards up to a year at the current rate. Mr. Ince further noted that seniors programming remains at 55 years plus.

Discussion took place on the option of implementing free admission to community recreation centres for seniors over the age of 80 or 90 and the following **referral motion** was introduced:

It was moved and seconded

That staff review options for an appropriate age for free admission to community recreation centres.

CARRIED

(ii) *ParticipACTION Community Better Challenge*

Gregg Wheeler, Manager, Sport and Community Events, advised of the ParticipACTION event running May 31 to June 16 to encourage more activity in the community. Mr. Wheeler noted that (i) individuals can sign-up online, through the application, and at various community centres, (ii) the challenge is meant to compare activity between cities and prize money will be granted at \$25,000 for most active community in BC and \$150,000 for most active in Canada, and (iii) the event will kick off this Friday night at Minoru Park with a free yoga class.

(iii) *Update on Doors Open and the Nikkei Memorial Public Art Project Unveiling*

Marie Fenwick, Senior Manager, Arts, Culture and Heritage, provided a reminder of two upcoming events, (i) Doors Open Richmond this Saturday and Sunday from 10 a.m. to 4 p.m., and (ii) on June 2 the Nikkei Memorial Public Art Project unveiling in front of the tram building followed by a reception.

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ADJOURNMENT

It was moved and seconded
That the meeting adjourn (5:27 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Parks, Recreation and Cultural Services Committee of the Council of the City of Richmond held on Tuesday, May 28, 2019.

Councillor Harold Steves
Chair

Amanda Welby
Legislative Services Coordinator

Councillor Chak Au
Vice-Chair (Item 4 Exclusively)

Schedule 1 to the Minutes of the
Parks, Recreation & Cultural
Services Committee held on
Tuesday, May 28, 2019.

Kwantlen Polytechnic University

Department of Sustainable Agriculture & Food Systems

ANNUAL REPORT

City of Richmond, Parks, Recreation and Cultural Services Committee
May 28, 2019



Where thought meets action



Introduction

KPU is now in our second growing season on the Garden City Lands and we are excited to share the work that has occurred over the last year! We are extremely grateful for the ongoing support that we have received from the City of Richmond Council and take every opportunity to share our story. We are proud of what we have been able to accomplish through collaboration with the community and we look forward to our continued work with the City of Richmond and community partners to foster an innovative, sustainable food system future!

As we have been developing the site over the last year, we have had many opportunities to interact with community members that visit the site. We have been thrilled to discover that many people are finding the farm to be a place of inspiration, learning, reflection and, in several cases, the farm has brought back fond memories of growing up on a farm and providing a reconnection with agriculture. We are currently working with students from the KPU Wilson School of Design to develop a plan that will ensure the space is designed in a way that is inclusive and welcoming to the community while ensuring their safety on an active farm. The community fence was the first community project that we did and we are looking forward to the many ways this farm will become part of the daily lives of our community.

We are humbled by the privilege and responsibility of stewarding this land and are committed to developing a truly unique and innovative space that represents our community and a deep commitment to fostering a sustainable food system in our region.

This report highlights some of the major developments that have occurred on the Garden City Lands this past year including ongoing soil remediation, crop establishment and infrastructure development. We once again express our deep gratitude to The City of Richmond Council and staff and encourage you to come and visit the site.

Please do not hesitate to reach out to anyone on our team with any questions, concerns or ideas.

Sincerely,

Dr. Rebecca Harbut
Chair, Department of Sustainable Agriculture
& Food Systems

www.kpu.ca/agriculture



Farm Map



Soil Management

Site Preparation and Soil Management

When KPU explored the possibility of establishing a Research and Teaching Farm on the Garden City Lands, we carried out soil testing in collaboration with the City of Richmond staff. The results of this analysis revealed that there were several locations on the site that had concentrations of metals that were above agricultural thresholds (Appendix A, B and C). This eliminated the possibility of growing crops directly in the soil. To address this issue, the City of Richmond proceeded to implement the recommendation put forward by consultants to cap the contaminated native soil with imported mineral soil. This was followed up with the addition of soil amendments to meet minimum standards for the imported soils that were defined by KPU.

This unconventional approach of capping the native soil with imported mineral soil was desirable to KPU for two reasons: 1) It provided adequate soil depth above the native soil to ensure that the crops do not interact with the native contaminated soil and 2) it presented an opportunity to sequester the carbon in the native peat soils while still allowing the production of food crops on the site.

The southern half of our lease area has been filled and we are looking forward to completing the north side of our fields when suitable imported soil is identified.



Crop Production

Organic Certification

The KPU farm has begun the three year process to attain organic certification. This certification process sets out requirements related to soil management, pest management, farm inputs as well as ecological consideration for the farm.

Cover Crops

A critical component of sustainable crop production is the use of cover crops. The use of cover crops contributes to improving soil health, pest management, water quality and minimizing soil erosion. During the 2019 season, approximately 5 acres of our site have been planted to cover crops. These cover crops will be evaluated for different characteristics such as biomass production, root density, weed suppression and soil health.



Market Garden

The south-western portion of the KPU Lease area where our greenhouse, high tunnels and market garden plots are located. The market garden is primarily dedicated to vegetable crop production which requires intensive management. All the plots are irrigated using drip irrigation to optimize efficiency.



Infrastructure Development

Geodesic Passive Solar Dome



During the fall of 2018 we began the construction of our geodesic passive solar dome. This is a prefabricated kit that provides greenhouse space that can facilitate year round production without the input of fossil fuel energy. This greenhouse does not require any supplemental energy input. It captures solar radiation and relies on the design to facilitate efficient year-round heating and cooling.

This dome has several features that allow it to function completely off the power grid:

- Geodesic shape optimizes interception of solar energy throughout the day
- A large water tank inside the dome facilitates the storage of heat energy during the day and releases it at night to moderate the temperature in the dome
- Air vents are opened and closed by wax-packed cylinders that respond to the temperature – as the wax heats up it expands and opens the vents and as the wax cools it contracts and closes the vents.
- Solar powered fans facilitate the movement of air throughout the structure to ensure even temperatures.
- The planting beds around the perimeter will have an air vent installed that will draw air from one end of the dome to the other to ensure even temperatures and provide insulation.

This energy-efficient house allows for solar-powered, year-round growing that will be used for early season seedling starts and mid-winter production

As there is a large water tank in the dome, there is a possibility to integrate fish production in the dome at a future date.



Movable High Tunnels

High tunnels have three main components:

1. Steel hoops covered by greenhouse plastic
2. Roll-up sides to facilitate passive ventilation
3. Built directly over soil to allow for in-ground production

These high tunnels are passively heated structures that harness the energy of the sun to increase the length of the growing season by allowing growers to start production earlier in the spring and carry on later into the fall.

The high tunnels that are being built on the Garden City Lands are also moveable along a track which allows for sustainable soil management as tunnel can be moved to expose soil to natural processes such as precipitation, freezing temperatures and direct sunlight. It also allows growers to optimize the production cycle and ensure cropping rotations can be followed.

KPU is currently working with the permit department to ensure that permit requirements for these structures meet engineering requirements without placing onerous demands on farmers. There will be three 30'x 70' tunnels constructed on the farm.



Shipping Containers and Processing Area

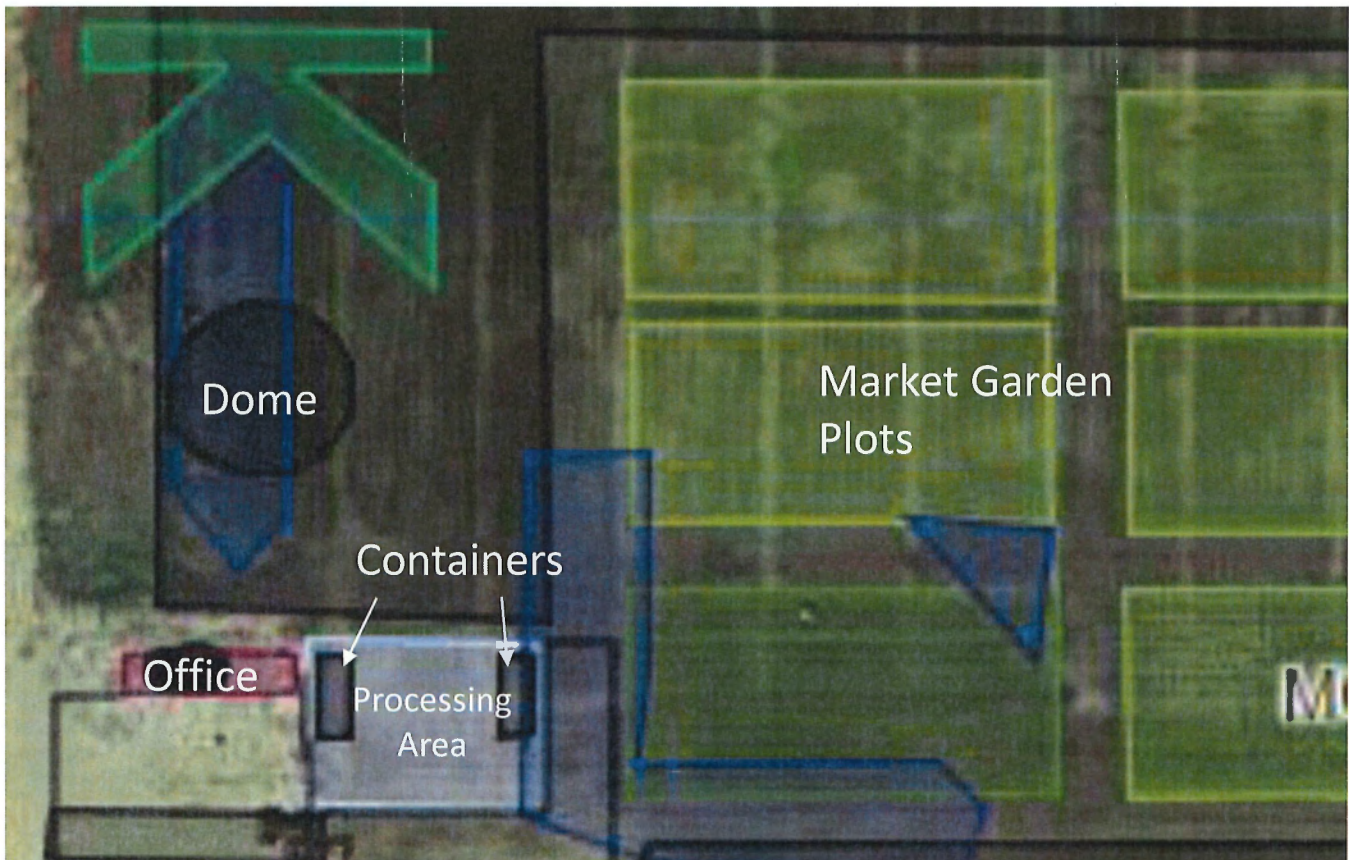
Shipping containers provide a good option for storage of farm equipment such as our walk behind tractor and its implements as well as storage of hand tools.

In-between the containers, there will be a covered processing area with stainless steel sinks and counters for washing produce.



Farm Office

KPU is currently in the process of procuring and securing permits for a mobile office to provide an office space for the farm. The office will be located on the main gravel pad. The office building is 10' x 40'.



Community Engagement

Farmers Market at Minoru Plaza

Our program continues to sell our produce at the weekly Tuesday market (12-4pm). This market has been an important connection with community and has facilitated many learning opportunities for both our students and community members.

School Group Tours

We have recently begun providing tours for school groups and have had a diversity of students visit the farm. We have had several schools that have expressed interest in bringing their classes to the farm and will be exploring the development of experiential learning opportunities for Richmond elementary and high school students.

Informal Conversations with Neighbours

As the community is increasingly using the trails on the Garden City Lands, there have been many conversations with neighbours about what is happening on the farm. There is a great deal of interest in the activities on the farm.

Small Farm Sessions

On March 2nd KPU cohosted a 'Small Farm Session' which was focused on policy and practices that are relevant to small farmers and provided all attendees with a tour of the farm.

Polytechnics Canada

On May 16th KPU Richmond hosted the annual Polytechnics Canada Conference and the Sustainable Agriculture Degree program was highlighted as an outstanding example of the type of unique programming that a community-embedded, Polytechnic University can provide. It was a wonderful opportunity to share the story of the partnership with the City of Richmond.



Community Engagement

Upcoming Events:

Twilight Tours

From June – October, the community will be welcome to join one of the faculty on a twilight tour of the farm. These tours will be an opportunity for the community to learn about the different activities occurring on the farm as well as providing an opportunity for asking questions and having discussion about food production.

Tours will occur the first Monday of every month @ 7:00pm

BC Seed Gathering

November 8 and 9th we will be co-hosting the BC Seed Gathering and will be highlighting the seed lab and the farm.

Farm Fest

We are looking forward to contributing to another successful Farm Fest on August 11, 2019.

Let's Connect!

Follow us on social media to stay up to date about what is happening at the farm!

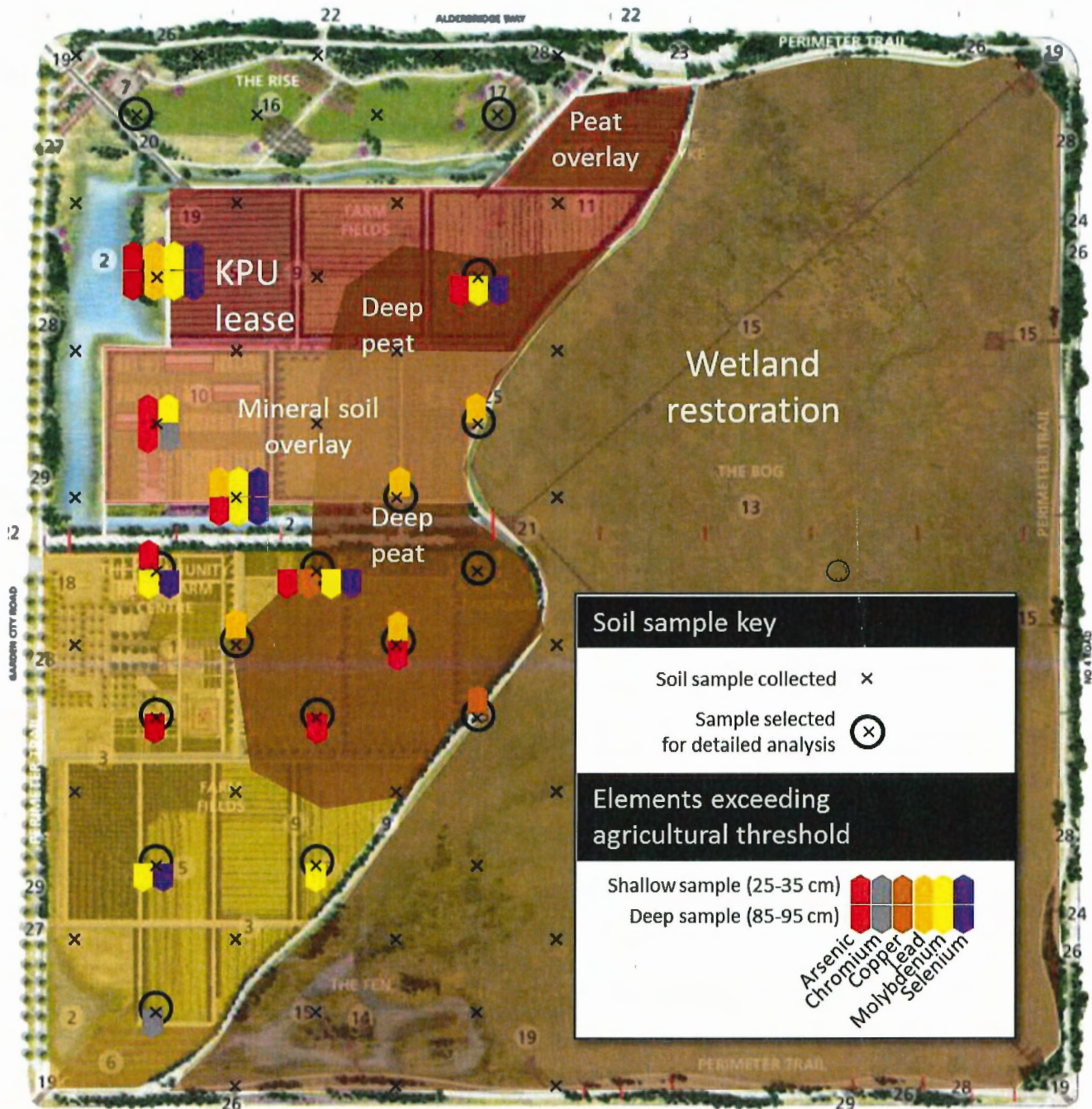


@KPUAGRICULTURE



APPENDIX A

Map of the Garden City Lands with the KPU Lease area outlined in red. The x indicates a soil sample location and x indicates locations where detailed analysis for metals was carried out. Samples were collected at 25-35cm and 85-95cm. Coloured bars at sample locations indicate sample locations where elements were found to exceed agricultural thresholds.



Appendix B: Soil Test Results for metal analysis on Garden City Lands. (Sample number refers to location on map in appendix B)

Metal	Agr threshold	Detection limit	GCL 6	GCL 9	GCL 14	GCL 16	GCL 21	GCL 23	GCL 25	GCL 26	GCL 28	GCL 29	GCL 30	GCL 32	GCL 33	GCL 35	GCL 36	GCL 37	GCL 42-1	GCL 43	GCL 49
Antimony	20	0.025	0.2	0.1	13.6	0.86	0.4	0.58	1.1	0.74	0.59	1.2	0.75	0.5	1	0.3	0.51	0.51	0.65	0.5	0.4
Arsenic	12	0.05	8.7	3.8	19	27.5	12.8	1.7	12.6	7.78	13.5	33.7	1.7	11.4	12.8	13.3	14.5	11.6	9.59	9.6	11.8
Barium	750	0.05	49.1	63.6	88	59.2	83.7	12.7	82.5	67.3	80.3	51.8	19.3	67.7	69.3	62.1	76.9	79	67.7	91.7	72.7
Beryllium	4	0.05	0.2	0.2	0.3	0.3	0.4	0.05	0.4	0.5	0.4	0.3	0.08	0.4	0.2	0.3	0.4	0.4	0.3	0.5	0.52
Cadmium	1.4	0.005	0.0872	0.124	0.123	0.755	0.116	0.125	0.291	0.236	0.179	0.288	0.071	0.184	0.185	0.139	0.194	0.271	0.193	0.249	0.179
Chromium	64	0.05	46.6	17.7	59.3	34.7	67.2	1.6	51.3	47.4	60.9	38.1	8.1	60.6	41.8	56.9	55.2	48.2	40.9	53.3	64.1
Cobalt	40	0.05	5.83	8.09	7.64	17.8	10.1	0.7	9.49	7.5	9.08	5.83	0.76	10.1	7.56	9.24	8.95	9.26	5.82	8.24	21.7
Copper	63	0.1	26.1	17.7	48.1	61.5	41.1	6.28	51.8	37.9	47.8	71	7.69	44.3	28.7	44.2	40.3	48.5	47.1	48.2	42.6
Lead	70	0.01	7.99	14	803	13	10.8	32.1	34.2	28.6	15.7	20.8	23.7	17.6	25	9.77	11.2	12.6	15.3	11.2	10
Lithium	?	0.25	11.4	8.11	20.9	9.31	19.3	0.25	22.5	24.8	20.4	9.34	0.66	21.8	16.2	20.3	24.9	19.2	20.6	26.3	19.8
Manganese	?	0.5	173	481	194	88.7	224	16	192	197	220	78.4	11.9	237	166	229	226	174	136	192	233
Mercury	6.6	0.01	0.0427	0.0347	0.0425	0.0435	0.0559	0.0231	0.0412	0.0356	0.0478	0.0545	0.0221	0.0421	0.0352	0.0432	0.0413	0.0351	0.0376	0.0408	0.0457
Molybdenum	5	0.05	1.52	0.495	4.73	14.3	3.32	1.79	5.58	4.81	3.67	18.3	1.28	3.11	3.45	1.94	3.81	3.41	7.96	5.27	1.93
Nickel	45	0.1	21.8	14.1	28.9	40.9	33.6	2.7	33.1	29.4	34	27.1	3.4	34.9	25.4	31.6	31.5	32.5	24.4	32.4	58.9
Selenium	1	0.1	0.5	0.3	1.1	1.5	0.84	0.57	1.2	0.84	0.85	1.6	0.5	0.78	0.74	0.1	0.74	0.7	1.2	0.88	0.6
Silver	20	0.025	0.08	0.05	0.1	0.1	0.09	0.03	0.1	0.07	0.1	0.2	0.03	0.09	0.07	0.08	0.09	0.07	0.08	0.1	0.1
Strontium	?	0.05	36.4	22.9	29.8	20.8	36.8	38.6	29.9	36.6	31.4	22.9	24.3	35.9	28.8	36.7	31.5	33.7	23.9	41.7	48.2
Thallium	1	0.01	0.09	0.06	0.1	0.3	0.1	0.01	0.1	0.1	0.1	0.1	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Tin	5	0.05	0.95	0.75	0.53	0.4	0.5	0.16	0.56	0.43	0.62	0.41	0.2	0.48	0.46	0.41	0.46	0.47	0.46	0.48	0.48
Uranium	23	0.01	0.81	0.4	4.3	5.22	3.5	0.2	4.6	3.8	3.8	4.2	0.3	3.2	2.1	2.9	2.6	2.5	4.1	4	1.8
Vanadium	130	0.05	68.5	48.8	75.6	60.9	95.3	2.5	67.5	55.6	77.1	74.3	7.48	71.3	46	80.4	63.5	56.9	51.8	67	84.2
Zinc	200	0.25	46.1	77.2	67.2	44.6	82	14	73.8	77.5	85.5	43.6	23.6	90	60.1	81.9	76.8	76.9	52.6	68.3	105
pH			4.3	6.1	4.1	3.2	4.6	3.9	3.6	3.9	4.3	3.5	3.9	3.5	3.7	4.5	3.8	3.6	4.1	3.9	4.2

Appendix C: Soil sample locations

