



City of Richmond

Report to Committee

To: General Purposes Committee

Date: June 30, 2016

From: Mike Redpath
Senior Manager, Parks

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Re: Garden City Lands Park Development Plan

Staff Recommendation

That the Garden City Lands Park Development Plan, provided as Attachments 1 through 9 and as detailed in the staff report titled "Garden City Lands Park Development Plan," dated June 30, 2016, from the Senior Manager, Parks, be received for information.

Mike Redpath
Senior Manager, Parks
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Att. 9

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering	<input checked="" type="checkbox"/>	
Environmental Sustainability	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO

Staff Report

Origin

On June 9, 2014, Council endorsed the Garden City Lands Legacy Landscape Plan (Attachments 1 and 2) as a framework for the future detailed planning and development of the Garden City Lands.

This report supports Council's 2014-2018 Term Goal 2: A Vibrant, Active and Connected City:

Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.

2.3. Outstanding places, programs and services that support active living, wellness and a sense of belonging.

The purpose of this report is to provide information and summarize the recent Garden City Lands site investigations, the design process and consultation results. The result is the Park Development Plan which is an update to the Garden City Lands Legacy Landscape Plan and also describes the plan's various features.

Findings of Fact

The City-owned Garden City Lands (the Lands) are approximately 55.2 hectares (136.5 acres), located at 5555 No. 4 Road at the eastern edge of Richmond City Centre, between Westminster Highway, Garden City Road, Alderbridge Way and No. 4 Road. The Lands are located within the Agricultural Land Reserve (ALR) and Metro Vancouver's 2040 Regional Growth Strategy has designated the Lands as "Conservation and Recreation."

In the current 2041 Official Community Plan (OCP) Land Use Map, the Garden City Lands are designated as "Conservation," which is defined as being natural and semi-natural areas with important environmental values that may also be used for recreation, park, agricultural and food production purposes.

In 2015, Council adopted the Ecological Network Management Strategy to provide a "framework for managing and guiding decisions regarding the City-wide system of natural areas in Richmond and the ecosystem services they provide on City, public and private lands." In the Ecological Network Management Strategy the Lands are recognised as a "Special Study Area."

Analysis

The 2014 Garden City Lands Legacy Landscape Plan (Legacy Landscape Plan) described an overall conceptual plan for the Lands. It was the result of investigations into the site's existing environmental condition, the development of a vision and a set of principles, and consultations with the public and stakeholders about possible uses. In developing the Legacy Landscape Plan, the City also sought guidance from the Agricultural Land Commission (the ALC), the Scientific

Advisory Panel for Burns Bog, and a Faculty of Land and Food Systems representative from the University of British Columbia regarding site development, management and programming considerations. The synthesis of the consultation together with the key findings from the background inventory and analysis of the site provided a solid basis for the development of an overall vision and set of guiding principles. Refer to Attachment 1 for a summary of the Legacy Landscape Plan and Attachment 2 for the 2014 GCL Legacy Landscape Plan Development Zones.

Council’s endorsement of the Legacy Landscape Plan included direction for staff to undertake further site analysis, detailed design investigations, and community consultation to generate a final Park Development Plan. To that end the following steps have been undertaken:



Site Analysis: Water and Ecological Resource Management Strategy

A consultant team with expertise in bog ecology, hydrogeological engineering and agronomy was hired to undertake further analysis of the Lands with the goal of more fully understanding the current health of the bog, its hydrology and plant communities, as well as to assess the potential implications of converting part of the site into agricultural land while conserving the bog. The consultant's work has been synthesised in the Garden City Lands Water and Ecological Resource Management Strategy (Attachment 9), which identified a number of management considerations to be addressed in the construction of the park.

One of the most notable considerations deals with the interface between the bog and proposed agricultural areas. The Water and Ecological Resource Management Strategy determined that it should be possible to maintain the ecological health of the core bog area while developing the western portion of the site for farming as long as the bog's water system was separated from the farming operation. To accomplish this, a hydraulic "barrier should be constructed with an impervious or low permeability material that extends from the bottom of the peat layer into the top of the surface berm. The subsurface portion of the barrier is intended to minimize ground water loss from the bog to the agricultural land to the west, drainage ditch to the south and utility trenches to the north and east.

The surface berm is intended to prevent surface water exchange between the bog and the adjacent land uses. The barrier will enhance the bog hydrology and preserve the water quality desired by a healthy bog ecosystem" (Attachment 9, pages 1-5). Different options for constructing the hydraulic barrier are described in the Water and Ecological Resource Management Strategy. Staff are reviewing, with the consultants, the suitability of these options in terms of methods and costs of construction, potential for phasing, monitoring protocols, and ecological impacts.

The Water and Ecological Resource Management Strategy also provides a discussion on soil amendments, drainage within the agricultural area, irrigation strategies for the agricultural areas, including how rainwater retention ponds could be integrated to provide sources of water for irrigation, and ecological management approaches throughout the park, in particular the bog, to maximize the environmental health of the park.

Soil amendment is proposed to be minimal utilizing amendment techniques to integrate the existing peat with quality mineral soil in keeping with the sustainability objectives of the Garden City Lands Legacy Landscape Plan.

Finally, the Water and Ecological Resource Management Strategy concludes with the importance of adopting an adaptive management approach to the development of the park elements. "It is not possible to provide detailed direction regarding management of the conservation area until there is a more confident understanding of the influence that the perimeter berms and hydrological barriers will have on the groundwater levels" (Attachment 9, page 19-1). To that end the Strategy describes a four year plan to monitor the bog's water systems, vegetation, habitat values to determine how the bog is responding to the introduction of the hydraulic barrier and berms and the perimeter pathways. It includes different approaches for managing invasive plant species within the bog that can be trialed to determine which approaches are most effective.

Site Design Investigations

Working in parallel with the Water and Ecological Resource Management Strategy team has been a team of consultants with expertise in site planning and engineering related to environmentally sensitive sites. This landscape team was tasked with the following two actions:

1. Update the Legacy Landscape Plan and its conceptual design elements to reflect the recommendations in the Water and Ecological Resource Management Strategy, the feedback from the public consultations and the farming strategies developed in concert with Kwantlen Polytechnic University; and
2. Determine a scope of work for Phase 1 that can be realised within the current capital funds available for the project.

The landscape team worked with City Parks, Environmental Sustainability and Engineering staff, and the Water and Ecological Resource Management Strategy team, to finalize the location and engineering of the central dyke, determine the final location and size of the rainwater storage ponds for irrigation, determine the requirements for utilities (e.g., power, water, sanitary and stormwater), explore options for the perimeter trails and park entries, describe planting design strategies throughout the Lands that could enhance the ecological values of the park, work with Kwantlen Polytechnic University in finalising the layout for the agricultural area and develop cost estimates for the different phases of the development plan. The design team's work resulted in the Park Development Plan (Attachment 4) which considered the following design elements:

Bog Conservation and Dike Location

The Water and Ecological Resource Management Strategy signals that it will be possible to separate the bog and its unique water retaining requirements, from the agricultural operations which seek to drain water freely through the soil. To that end the design team investigated different methods of constructing the dike/hydraulic barrier to isolate these water systems. The design team also evaluated the alignment of the dike as shown in the Legacy Landscape Plan and proposed some adjustments.

The Fields

Approximately 16 ha (40 acres) of the Lands is dedicated to agricultural production, most of which is expected to be configured into smaller plots (e.g., 1 to 2 acres) with intensive operations typical of the urban agriculture movement. The City has been working with Kwantlen Polytechnic University Institute for Sustainable Food Systems in preparing an overall Agricultural Management Plan for the Lands. The Agricultural Management Plan will apply sustainable agricultural practices that integrate environmental protection, social and economic equity, and economic profitability into all farm operations.

Perimeter Trails

Two different perimeter trail configurations were evaluated. One proposed a single four metre wide multi-use trail and the other proposed separate pedestrian and bicycle trails. Where the trails met the major road intersections and future pedestrian crossings of Alderbridge Way and Westminster Highway, the form and character of the ‘entries’ were evaluated. The perimeter trails are located primarily on land that has been previously disturbed due to roadway construction and are therefore expected to have no significant impact on the bog, nor impact farming operations.

Park Entries

The entries into the park are proposed to be kept simple and modest in size, and maintain the long views across the Lands. The entries will also provide opportunities for interpretive signage and maps of the park, quick access to the park’s trails and public art.

The Rise

This is the area previously referred to as “the Mound.” It is where a mix of fill material was placed decades ago and as a result it is at a higher elevation than the rest of the Lands and provides views across the farm fields and bog. The design team explored opportunities for informal recreation, agriculture and ecological enhancement.

Rainwater Collection Ponds for Irrigation

The design team evaluated the extent to which rainwater could be captured, stored and reused for irrigation of the farm fields. In addition these ponds are expected to provide a range of wildlife habitat.

Planting Design

Native trees and shrubs are proposed around the park’s perimeter to enhance the ecological performance of the Lands. As well, along the Garden City Road and Westminster Highway frontages, rain gardens that include trees and wetland plants are proposed. Within the park, in open areas and along trails, fruit bearing trees and pollinator plants are proposed to reinforce the agricultural and habitat values of the Lands.

The Community Hub

The design for the community hub is not part of this phase of the design work and will be part of future discussions when funding becomes available. Nevertheless, the community hub will eventually become the Lands’ main entry. It will host multi-functional agricultural buildings, community gardens, an event field and the primary parking area for the Lands.

Parking

As noted in the discussion of the Community Hub, the primary parking lot will be developed as part of the Community Hub. This parking area will support farming activities, farm and bog

related events and provide parking for visitors to the Lands. It is expected to be constructed of permeable materials and be modest in size (70 to 80 stalls) to minimize its impact on the Lands. The small parking lot that was proposed in the Legacy Landscape Plan for mid-point along the Alderbridge Way frontage, close to the Rise and its informal recreation, was evaluated. The design team also assessed the possibility of adding parallel parking spaces along the west side of No. 4 Road. The latter two locations occur on previously disturbed locations and will not impact the bog.

The site design team's investigations formed the basis for the two stages of consultation.

Consultation Process

The community consultation focused on two streams. The first began with an invitation to key community groups (e.g., Richmond Food Security Society, Richmond Fitness and Wellness Association, Richmond Nature Park Society and Garden City Conservation Society) to meet with staff and consultants to discuss the preliminary Water and Ecological Resource Management Strategy analysis and its implications for the site development.

This meeting was then followed by Stage 1 Public Open Houses at which people were asked for their opinions regarding a series of design options including pathway locations and types, the treatment of entries into the park and the types of vegetation proposed. Public feedback was also received via LetsTalkRichmond.ca. The City received 179 responses to the survey and the majority of respondents were pleased to see the plan evolving as presented. In terms of the responses to the five questions, the public's preference was for separate pedestrian and bicycle paths, maximizing the use of native plants throughout the site, including perimeter plantings, keeping the entries into the park modest in size, using the Rise (Mound) as a location for informal recreation and orchards, and limiting parking to the community hub, with a small parking area off Alderbridge Way and parallel parking along No. 4 Road (Attachment 3).

Staff and the consultants reviewed these comments and refined the site plan to reflect the preferences. This refined plan was then presented at Stage 2 Public Open Houses for further feedback. The City received 40 responses through comment sheets provided at the open houses, and online through LetsTalkRichmond.ca. The majority of responses were supportive of the proposed development plan.

The other consultation stream that has informed the development plan is the participation of Kwantlen Polytechnic University. Since the early stages of the current design process, Kwantlen Polytechnic University has been actively involved in helping to refine the agricultural component of the Legacy Landscape Plan. They have provided input on proposed sizes of the various farm fields and the location of trails and drainage ditches. In addition, their proposed in-kind contribution to the project will be to develop a comprehensive Agricultural Management Plan for all the agricultural portions of the site. Kwantlen Polytechnic University also participated in the public open houses and community group meetings to share their interests in the project and answer questions regarding how the site would be farmed.

In addition, staff met with both the Advisory Committee on the Environment and the Agricultural Advisory Committee on two separate occasions. The first was to share the

preliminary findings of the Water and Ecological Resource Management Strategy and the second was to provide the committee members with an opportunity to comment on the proposed development plan.

Agricultural Land Commission

A draft of the Legacy Landscape Plan was reviewed by the Agricultural Land Commission (ALC). The ALC provided preliminary comments regarding the plan and an initial positive review of the Garden City Lands vision and concept direction. More recently, City staff met with ALC staff to discuss the proposed Phase 1 scope of work within the Park Development Plan to determine what applications the City would be required to make to the ALC to gain approval to proceed. ALC staff confirmed that there would not be a requirement for a 'Non-Farm Use' application for the Phase 1 works as these are permitted within the ALR. Rather the components of the Park Development Plan can be addressed through the following two separate ALC application processes:

- Notice of Intent to Place Fill and/or Remove Soil; and
- Transportation, Utility, or Recreational Trail Uses within the ALR.

Garden City Lands Park Development Plan (Attachments 4 to 8)

The Garden City Lands Park Development Plan (Attachment 4) represents the synthesis of the original Legacy Landscape Plan with the new science-based recommendations that are part of the Water and Ecological Resource Management Strategy, as well as the feedback the City received from hundreds of Richmond residents and the contribution of Kwantlen Polytechnic University regarding agricultural production. The Park Development Plan continues with and elaborates upon the seven landscape zones that were illustrated in the 2014 GCL Legacy Landscape Plan Development Zones (Attachment 2):

1. The Bog: This ecologically important area remains the dominant feature of the Lands. The bog's ability to thrive will be enhanced by the construction of the barrier dike that separates its water system from the water dynamics associated with the agricultural area to the west, as well as an ongoing management plan to monitor water levels and control invasive plant species. The location of the hydraulic barrier and berm reflects the ratio of conservation land to farm land defined in the Garden City Lands Legacy Landscape Plan, and coincides with the transition from thicker to shallower depths of peat as well as maintaining the Fen and Bog relationship (Attachments 4 and 5).

The alignment of the hydraulic barrier and berm as proposed in the Park Development Plan is straighter than the alignment shown in Legacy Landscape Plan based on the research within Water and Ecological Resource Management Strategy. Staff are reviewing the barrier and berm recommendation and will work with the consultant on finalising its location and construction methods.

2. The Fen: As described in the Water and Ecological Resource Management Strategy the Fen is an ecologically important associate of a bog ecosystem and is therefore important

to maintain. Consequently, the southern part of the dike has been located to the west of the core of the Fen to ensure its relationship with the bog continues (Attachment 4).

3. **The Fields:** A total of 16 ha (40 acres) are dedicated to farming as illustrated in the Landscape Development Plan. It is proposed the Kwantlen Polytechnic University will farm in the northern section while City will manage the southern 8 ha (20 acres), which will be adapted to farming activities as they surface. The rainwater storage ponds that are illustrated at the northwest and southwest of the site are sized to retain sufficient rainwater to provide supplemental water for irrigation purposes, thereby reducing reliance on potable water (Attachment 4). The majority of the farming zone will be open to the public via accessible trails that can also serve as farm service roads.
4. **The Rise:** This area represents a combination of passive recreation, agriculture and the establishment of a native forest. There are proposed to be orchard plantings to demonstrate different orchard planting and management techniques as part of a community education and outreach program. The meadows will be available for passive recreation such as picnicking, frisbee tossing and kite flying, and will include pollinator friendly wildflower plantings. The native forest will include a range of deciduous and evergreen plants native to the Lower Mainland and will provide a visual buffer to Alderbridge Way and the development to the north. This will ensure that distant views from the south and central part of the Lands will be to the North Shore Mountains (Attachment 4).
5. **The Community Hub:** The plan for this area remains illustrative and is not funded at this time. It serves as a 'placeholder' until the programming activities on the Lands have had a chance to mature and the requirements for this area can be more clearly determined. In the interim, the site can be used as a construction staging area as well as a temporary event space for harvest-themed activities (Attachment 4).
6. **The Sanctuary:** This area remains an important part of the site as it sits close to the middle of the Lands where noise from the surrounding roads is reduced and the experience of the Lands can be more fully appreciated. The Sanctuary also sits adjacent to a clump of cloudberry found on the east side of the dike (Attachment 4).
7. **The Edges:** The two primary design features of the "edges" are the pedestrian and bicycle trails, and the native plantings used to buffer the park from the busy streets. Based on public feedback and considering the future populations that will live in the adjacent neighbourhoods pedestrian and cyclists will have separate trails. Even though separated trails occupy more land, the footprint of these trails will largely remain in the previously disturbed areas and therefore have minimal impact on the bog ecosystem. The character of these trails would vary depending upon their location and would include a variety of surfaces including permeable paving, compacted crushed gravel, concrete, and wood boardwalks. All the trails will be accessible to people of all physical abilities. It is expected that lighting will be installed in the future along the perimeter walkways and will be designed to control light pollution and minimize the disturbance to wildlife (Attachments 6 to 8).

Phase 1 Implementation

The Park Development Plan provides an update to the approved Legacy Landscape Plan. It illustrates features that are not included in the current Capital submissions (e.g., Community Hub and Farm Centre, passive recreational elements on The Rise, wood boardwalks, entry nodes and public art) that will be the subject of future capital submissions. Implementation of Phase 1 of the Park Development Plan is estimated to be \$4.4 million dollars which is funded from the existing 2015 and 2016 Council approved Capital funds.

City staff from Parks, Environmental Sustainability and Engineering will be working with the consultant team to develop the construction documents in preparation for the first stage of construction. The work is anticipated to commence in the summer of 2016 and continue through 2017 with works in the interior of the site limited to the dry season (June through October).

Financial Impact

There is no financial impact to implementing the Phase 1 works described in this report as sufficient funding is available through previously approved capital funds.

Conclusion

Since 2013, the public has expressed their support for a unique park to be located in the City Centre, one that has the potential to be a green oasis for residents and visitors as well as an important ecological and urban agriculture showcase site. As a result of the comprehensive planning and design that has occurred in the last three years, there is now a high level of interest from both Council and the community to begin using the land for agricultural and recreation. To that end, the Park Development Plan described in this report provides the direction to begin implementing the first phase of the plan.

As part of the 2015 and 2016 Council approved capital budgets, funding has been approved for the phased implementation of the 2014 Garden City Lands Legacy Landscape Plan. The Water and Ecological Resource Management Strategy and the Landscape Development Plan which are attached to this report will be used to guide the phased implementation. It is anticipated that construction mobilization on the site will occur in the summer of 2016 and is anticipated to continue through 2017. As work proceeds on the site, ongoing monitoring of the site vegetation and hydrology will continue as part of an adaptive management approach to park development. This approach will ensure that best practises for ecological and agricultural management are followed. The completion of the perimeter trail around the Garden City Lands will present to the community an accessible 3.0 km trail that will welcome and introduce residents and visitors of Richmond to the Garden City Lands.



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- Att. 1: Summary of the Legacy Landscape Plan
- 2: 2014 GCL Legacy Landscape Plan Development Zones
- 3: April 2016 Public Survey Results
- 4: 2016 GCL Park Development Plan
- 5: GCL Park Development Plan – The Central Dike
- 6: Park Development Plan – The Garden City Road Edge
- 7: Park Development Plan – The No. 4 Road Edge
- 8: Park Development Plan – The Westminster Hwy. Edge
- 9: Garden City Lands Water and Ecological Resource Management Strategy