

# *Environmental Sustainability Advisory Committee - Minutes*

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**Present:**

Councillor Starchuk, Chair  
A. Grewal  
B. Lishanko  
M. Sharma  
N. Hogan  
S. Mossop

**Regrets:**

D. Skaey, Vice-Chair  
J. Zelazny  
L. Bykowski  
S. Sabharwal  
S. VanKeulen

**Staff Present:**

A. Mathewson, Sustainability Manager  
M. Kischnick, Community Planner  
M. Sykes, Climate and Energy Manager  
R. Landucci, Urban Forestry Manager  
S. Godwin, Environment Manager  
C. Eagles, Administrative Assistant

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**A. ADOPTION OF MINUTES**

1. Minutes of March 28, 2018.

It was

Moved by B. Lishanko

Seconded by M. Sharma

That the minutes of the Environmental  
Sustainability Advisory Committee meeting held on March 28, 2018, be adopted.

Carried

**B. DELEGATIONS****C. STAFF PRESENTATIONS**

1. **Redwood Heights Neighbourhood Concept Plan (NCP) Stage 2 Update**  
Markus Kischnick, Community Planner

Staff provided an update on the Redwood Heights Neighbourhood Concept Plan (NCP) Stage 2 and highlighted the following information:

- The Redwood Heights NCP was initiated by City Council in 2009, following a petition received from residents/landowners in the area. During the planning process three different land use concepts were considered before the Stage 1 Land Use Concept (LUC) Plan was approved in 2013. The Environmental Sustainability Advisory Committee was presented information regarding the land use concept plan at two separate times in October and December of 2010.
- Key features of the Stage 1 LUC Plan include a central elementary school, a private high school, six neighbourhood parks, eight storm water detention ponds, a central wildlife hub and corridor, and a neighbourhood mixed use center and low density cluster transitions to the ALR.

- Final adjustments were made from the Stage 1 to Stage 2 LUC Plan mainly related to: transportation access to Highway 15; drainage (detention) pond areas, and adjustments to location and size of some Neighbourhood Parks). Changes that are proposed in the Stage 2 LUC Plan include a reduction of stormwater detention ponds from eight smaller ponds to four larger detention facilities, and an increase in the number of parks from six to seven, along with adjustments to parkland surrounding three of the proposed detention pond areas.
- The Stage 2 Land Use Plan includes:
  - A diversity of housing types serving a variety of household types including large-lot and small-lot single detached houses, semi-detached houses, lower-density cluster housing, townhouses, rowhouses and low-rise apartments;
  - Safe and convenient travel on foot, by bicycle, by automobile via an inter-connected, modified grid of streets, multi-use pathways and walkways. The street network is designed to accommodate a route for a community shuttle bus in the future, which will allow most residents to walk to a bus stop within about six minutes of their homes (400 metres);
  - Shopping for "everyday" needs provided by two neighbourhood commercial centres (a larger one at 177 Street and 24 Avenue and a smaller neighbourhood commercial node at 182 Street and 24 Avenue) both located within a convenient walking distance of most homes in the NCP;
  - Active living and outdoor recreation through a series of easily accessible neighbourhood parks, greenways and trails;
  - Employment opportunities close to home in the neighbourhood commercial centre and in the nearby Campbell Heights industrial area, located approximately 1.6 kilometres (1 mile) from the easterly boundary of the NCP area; and
  - Habitat protection areas supporting the preservation of wildlife, in addition to riparian setbacks from creeks for the protection of fish habitat.
- At present, there is no comprehensive City-wide funding strategy to acquire these natural areas located on private land. Redwood Heights NCP area has 42 acres of Green Infrastructure Network land, which is identified as a wildlife corridor and hub.
- To acquire the land for the wildlife corridor and hub within Redwood Heights, there will be a development cost charge (DCC) of approximately \$15,000 to \$30,000 per unit, depending on future land use zones, with a final review of proposed DCC to be provided to Council shortly.

- A key feature of the plan is to include Special Road Design Crossings for Wildlife Corridor Areas for roads crossing the wildlife corridor. A large wildlife underpass is being considered for 24 Avenue. Future design may be to accommodate large animals such as deer for the Regional BCS Corridor. Specific design guidelines will be included into the NCP document.
- The Redwood Heights Land Use Plan includes over 210 acres of residential land use designated areas. This includes seven different residential designation types, and one flex residential designation (allowing a choice between two of the residential designation types). Of the seven residential designations, four allow for primarily single family or two family dwellings, two allow ground oriented multiple family dwellings such townhouses and row houses, and one allows higher density multifamily development such as stacked townhouses and low-rise apartment developments.
- It is projected that the plan will provide for an estimated 4,800 residential dwelling units and a future population of nearly 12,000 residents. (There are currently 91 lots and about 300 residents in the area).
- Staff noted that there is currently limited water service in the area. Two feeder mains and a network of local distribution mains are required to provide water service to the area. The water supply for the area will be from the existing Grandview pump station and reservoir located in the 16700 block of 24 Avenue. The topography requires that the area have three pressure zones.
- Presently, Redwood Heights is not serviced by a community sanitary sewer system and relies on individual septic systems for wastewater disposal. To connect to the municipal sanitary sewer system, Redwood Heights requires a network of gravity sewers, a pump station, a force main, and an extension of the existing Grandview Heights Interceptor.
- The proposed sanitary sewer system will collect wastewater in local sanitary sewers that will flow by gravity to a trunk sewer along the northeast boundary of the NCP area. From the trunk sewer, the wastewater will be conveyed to a new Grandview East pump station, which will pump the wastewater via force main to the Grandview Heights Interceptor.
- The Redwood Heights NCP area drains north and northeast through various natural and man-made watercourses within the Erickson Creek catchment down through the agricultural lowlands, before draining to the Nicomekl River. With the development proposed for Redwood Heights, the stormwater will require management with a network of storm sewers and four stormwater catchments each with a community detention pond.

- The stormwater servicing plan for Redwood Heights has been developed to:
  - Protect downstream lands from prolonged flooding;
  - Protect receiving watercourses from erosion;
  - Maintain base flows in creeks;
  - Maintain water quality in creeks, ditches and storm systems;
  - Safely convey runoff to large river systems; and
  - Protect the natural environment adjacent to watercourses.
- The Redwood Heights NCP would expand the population from 300 residents and include transit bus service along 24 Avenue, with future collector roads also design to accommodate future transit service.
- It is estimated that the cost is nearly \$200 million dollars to service the Redwood Heights NCP Area. \$86 million is the estimated revenue from development cost charges (DCCs) in Redwood Heights, based on the current citywide DCC rates (Bylaw 19107). The revenue shortfall may be recovered using one of the following financial tools:
  - Establish an area specific DCC rate for infrastructure in the Redwood Heights NCP area;
  - Utilize development works agreements to fund any revenue shortfall; or
  - A combination of both.
- Several consultants were retained to assist with the preparation of the Redwood Heights NCP, including heritage, environmental, commercial, transportation, financial, and engineering service studies. The total cost of consultant services to the City was \$572,442.59. A per unit surcharge fee will be based on the anticipated 4,542 units at the mid-range density, and will result in an estimate per unit fee of \$126.03.
- To activate the process by which amenity contributions are collected to support development within the NCP, the Zoning By-law will need to be amended to add Redwood Heights to the list of secondary plan areas within which monetary contributions are required in exchange for bonus density.
- Staff are currently preparing the final land use, servicing and financial plan to bring forward to Council in June/July 2018, subject to changes as the NCP proceeds. The Committee noted they support the mechanism for additional parkland and potential crossings for wildlife.

The Committee suggested staff provide more visuals at an upcoming ESAC meeting.

**D. OUTSTANDING BUSINESS**

**1. BC Energy Step Code Adoption**

Maxwell Sykes, Climate & Energy Manager

File: 5280-11

Staff provided a Power-Point presentation on the BC Energy Step Code Adoption and highlighted the following information:

- The BC Energy Step Code is a Provincial wide update to the energy code designed to make base code buildings net-zero energy ready by 2032. The BC Energy Step Code is a single provincial standard that replaces the different green building energy standards previously referenced by local governments. Local governments now have the option to select from a set of energy performance requirements known as Steps in establishing new building energy performance requirements in their jurisdiction.
- The BC Energy Step Code takes a performance-based approach to offer builders flexibility in meeting steadily increasing energy performance requirements, rather than specifying specifically how to construct a building.
- To comply with the BC Energy Step Code, builders must use energy modeling software and on-site airtightness testing to demonstrate that their design and constructed building meets the requirements of the BC Energy Step Code.
- Staff noted that smaller residential and larger residential developments have different requirements, phases and steps. Staff have proposed different Steps for different building types, including single family dwellings and duplexes, townhomes and small apartments, high-rise concrete residential, mid- and larger low-rise wood frame residential, and commercial. Based on feedback received during industry consultation, single family dwellings and duplexes will be given the most time to adjust to the basic requirements of the Step Code before moving to higher Steps. Staff are working with Planning to develop a regulatory approach to require the highest Steps in greenfield development areas.
- The BC Energy Step Code focuses on energy, but not climate change-causing greenhouse gas emissions; therefore, one of staffs' main objectives is to develop approaches to reduce greenhouse gas emissions alongside improving energy efficiency. To date, the primary approach is to offer builders the option to build to one Step lower than required if their building type is a minimum percentage of energy consumed, and their building is supplied by the City's district energy system or an approved on-site low carbon energy system, such as an air source heat pump.
- Staff are actively working with plan checking and building inspection staff to develop changes to existing permitting processes and how to deal with buildings found not to be in compliance with Provincial and City requirements.

- In response to questions from the Committee, staff noted that technology does exist to build net zero ready buildings, and both the construction and building supply industries are actively developing and scaling up higher performing windows, walls, mechanical systems, and other core building components. In time, costs for these newer technologies will decline due to manufacturer learning, industry learning, and economies of scale.
- Staff noted that plans to educate builders are underway and training sessions are provided by BC Housing and others. The development industry requires education on the process and clarity on expectations.

The Committee expressed concerns on retrofitting current structures and asked staff if there is a plan to coincide with new buildings. Staff noted they are trying to have some alignment with neighbouring local governments. The Committee noted that having the Step Code requirements in a Sustainability Checklist on rezoning and development permit applications would be valuable and would create transparency for residents. Staff noted there is the potential to include elements on check lists such as exceeding step code requirements, installing low carbon thermal energy systems, and what percentage of annual energy consumption depends on fossil fuels.

Staff are preparing to bring the BC Energy Step Code to Council for adoption in July, 2018.

**E. NEW BUSINESS**

**F. ITEMS REFERRED BY COUNCIL**

**G. CORRESPONDENCE**

**H. INFORMATION ITEMS**

**1. Agricultural Food Security Advisory Committee (AFSAC) Update**

No update was provided.

**2. Corporate Report Ro60: Funding Request – Foam Free Vaisakhi Initiative**

The Chair noted that over 200,000 sugar cane plates were purchased and used for the Vaisakhi event. At the Vaisakhi event, staff were able to provide food stalls with containers to dispose the cooking oil, which went to the Surrey Biofuel Facility.

The Chair noted that many food stall owners, who had not switched already, were interested to participate in switching over to non-polystyrene products.

**I. OTHER BUSINESS**

**1. Verbal Updates**

Staff noted an update on the Corporate Emissions and Community Climate Action Strategy will be brought forward at an upcoming ESAC meeting. Staff collected updated data for the 2016 and 2017 year for 55 targets of the Sustainability Charter.

**J. NEXT MEETING**

The next meeting of the Environmental Sustainability Advisory Committee is scheduled for May 30, 2018 at 6:00 p.m. in 2E Community Room B.

**K. ADJOURNMENT**

It was  
Advisory Committee meeting do now adjourn.

Moved by M. Sharma  
Seconded by S. Mossop  
That the Environmental Sustainability

Carried

The Agriculture and Environmental Sustainability Advisory Committee adjourned at 7:30 p.m.

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Jane Sullivan, City Clerk

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Councillor Starchuk, Chair