Environmental Sustainability Advisory Committee - Minutes

2E - Community Room A
City Hall
13450 - 104 Avenue
Surrey, B.C.
WEDNESDAY, SEPTEMBER 17, 2014
Time: 6:00 p.m.
File: 0540-20

Present:	**Regrets:**	**Staff Present:**
Chair – Councillor Hayne	W. Mbaho	C. Baron, Manager, Drainage & Environment
B. Campbell	J. Purewal	N. Aven, Manager, Urban Forestry & Environmental Programs
G. James		J. Boan, Manager, Transportation
S. Sabharwal		J. Gallinger, Legislative Services
G. Sahota (Rep. to DAC)		
D. Skaey		
B. Stewart		
J. Stewart		
S. Van Keulen (AFSAC Rep.)		
A. Fasciani (YR)		
A. Zhang (YR)		

A. ADOPTION OF MINUTES

1. Environmental Sustainability Advisory Committee Minutes of July 23, 2014 to be approved.

It was Moved by B. Campbell
Seconded by G. Sahota
That the minutes of Environmental Sustainability Advisory Committee meeting held on July 23, 2014 be approved.
Carried

B. DELEGATIONS

1. **Proposed LRT and Environmental Impacts**
File No. 8630-40

Jaime Boan, Transportation Manager, Engineering before the Committee to discuss the proposed Surrey LRT and the potential environmental impacts. The following comments were made:

- The Transportation Strategic Plan was adopted in 2008 and has achieved a Walking Plan, Cycling Plan, Road Network Planning (road allowance and classification maps), Parking Management, the Safe & Active Schools Program and Safe Mobility Plan which will be coming out soon.
- **Engineering and Built Environment** includes:
  - the Traffic Management Centre which traffic flow in real time to reduce idling, oversees signal coordination on 29 corridors with 2-3 new corridors added each year;
  - the Transit-Supportive Parking Requirements which reviews parking standards in City Centre and along Frequent Transit corridors;

- Improvements to Cycling and Pedestrian Infrastructure which increased funding for new projects and infrastructure, including near schools—e.g. $4 million worth of pedestrian improvements in 2014;
- New Road Standards which provides for wider boulevards to allow larger trees and more infiltration; better accommodates pedestrians and cyclists;
- Green Boulevards which provides 4,000-5,000 trees to be planted per year; and
- District Energy to distribute thermal energy (heats water/buildings).

- **Education and Outreach includes**:
  - **Safe and Active Schools Program** that aims to increase active travel and improve road safety near schools by providing bike training (49 schools), school travel planning (22 schools) and events, like the fall "Walk & Roll" competition.

    As studies are concluded more education and outreach occurs. There has been a 27% increase in students that bike to school. Bicycle training for children 4-5 is also being provided.
  - **TravelSmart** (a TransLink initiative) **partnership** supports and encourages the use of sustainable transportation and includes business outreach in City Centre and travel training for seniors.
- LRT in Surrey is critical to a livable region. By 2041 Surrey will have 300,000 new residents and 150,000 new jobs (50% more than today). Over the same period, expect to only expand the road network by about 12% - LRT needed to manage congestion.
- The LRT will attract investment and shape compact development in existing urban areas. Developer surveys indicate that 72% rail based rapid transit would favourably influence their decision to invest in Surrey.
- The LRT will act as a catalyst in the City Centre and connect it to other town centres and Langley.
- Phase 1 – corridor options were identified.
- Rapid Transit Technologies include Bus Rapid Transit (BRT), Light Rail Transit (LRT), Rail Rapid Transit (RRT) which has been branded as SkyTrain. These technologies were considered and all are separated from general purpose traffic. LRT and BRT would run in a centre median with stations in the middle of the road. SkyTrain would be elevated in all locations.
- Phase 2 – potential options were evaluated and refined. A total of 9 alternatives plus a Best Bus comparison scenario were shortlisted. An additional 3 alternative were added after design refinement work in Phase 2.
  - Each of the 12 alternatives was compared across 7 accounts using 34 criteria and over 70 measures.
  - By necessity Phase 2 was only a high level review, so that the alternatives could be compared to each other.

  - On the environmental account, the general area of impact was identified.
  - It was not within the scope of Phase 2 to identify mitigation measures – they will be developed to the concept definition level in Phase 3A, and further in Phase 3B.

- The City's approved vision is supported by the regional Mayor's Council for the Surrey LRT system.
- The Plan proposes LRT along 104 Ave and King George Boulevard (KGB) in 7 years and along Fraser Highway in 12 years. It is important to note that all is dependent on funding.
- The Network will be 27 km of LRT and a further +9 km of BRT and will include 21 LRT stations plus +4 BRT stations at a cost of $2.14 Billion.
- The Corridors will include the L-Line from Guildford along 104th Avenue to City Centre and then along KGB to Newton with the BRT continuing on to South Surrey. The 2nd corridor will run along Fraser Highway from City Centre to Langley.
- Why not SkyTrain? LRT is by far more cost-effective than SkyTrain.
  - One line of SkyTrain on Fraser Highway from Surrey City Centre to Langley (16 km) would cost $2.2 billion.
  - The 27 km of LRT along 104 Ave, King George, and Fraser Highway would also cost $2.14 billion and connect more communities.
  - **Myth: LRT is much slower than SkyTrain** - SkyTrain would be faster than LRT by only 5 minutes on Fraser Highway. By selecting LRT, Surrey will have an additional 10 km of rapid transit while spending an extra 5 minutes to travel between City Centre and Langley.
- Why not BRT?
  - BRT has limited Capacity.
  - Ride Quality – choice riders are less likely to choose a bus rapid transit option.
  - There are more emissions which are expected to be 93,9000 tonnes in 12 years – CO_2 reduction 3-0 years – 211,100 tonnes, CAC reduction (30 years) – 8,650 tonnes for a net tonnage of -125,850.
  - Noise and Vibration (qualitative) - noise will be less than a bus only solution and vibrations could be more intense than bus and vibration.
  - BRT not as effective at shifting development patterns.
  - Surveys conducted of developers show that 72% indicated that rail-based rapid transit would favourably influence their decision to invest in Surrey, versus bus-based rapid transit.
- BRT not as effective at shifting development patterns.
- Green timbers will be the greatest environmental concern. Meetings have been held with Green Timbers Heritage Society to discuss concerns and opportunities. Options and consideration are and will continue to be explored. Opportunities for wildlife crossings will be investigated

(currently there are no crossings). Opportunities will be presented for mitigation of disturbed ecology elsewhere in the park.

- Sufficient road allowance has been historically set aside and the requirement is for 2 travel lanes in each direction, LRT and pedestrian/ cycling accommodation. The goal to minimize impacts to forest and wildlife.
- Rationalizing the road allowance in and around the park is important and solutions will be investigated/researched to determine ways with the least environmental impact.
- Phase 3A – next steps – Concept definition and Preliminary Business Case will refine conceptual designs and project costs and provide revenue estimates, identify projects risks and confirm property and environmental impacts. The study will commence in the Fall of 2014 and be finished by the Spring of 2015.
- Phase 3B will follow Phase 3A and will focus on detailed engineering design (30%) and a final business case to provide additional certainty on costs including mitigation measures.
- Other elements of the Mayor's Vision include new B-Lines along Scott Road and 72 Ave, from Newton to South Surrey and along 200 St in Langley. There will also be a significant increase in local bus service. The new Pattullo Bridge is included in the Mayor's Vision.

The Committee made the following comments:

- Is the Traffic Management Centre automated for detection purposes? The Transportation Manager responded that at this time the centre is not automated and will be considered in the future.
- Is traffic data available on any GPS systems? The data is available on the City's Cosmos system and TransLink, MoTI, and Goggle provide the data as well.
- It was noted that the difference between LRT and car travel would be the congestion. The Transportation Manager stated that it was the City's intention to synchronize traffic lights along the corridors to alleviate the congestion.
- How many metres on each side will be required along the Green Timbers portion of the route? The Transportation manager responded that 28-32 metres of the 40 metre corridor are required but that requirements had yet to be determined.
- Every time rapid transit goes in property values go up – infill takes place – which area will be the best area for the infill? For example going further down KGB towards Highway 10 would increase the density of population. Which is the one that will pay the best return?

  The Transportation Manager agreed that the Fraser Highway is the longer route but would cost more. He confirmed that there is potential growth in the Newton area and along 104th which could go to higher density. There are pockets along Fraser also. The Mayors' Vision was to address the core area first within 7 years.

- The Transportation Manager pointed out that initially the LRT was to connect the town centres as well as to Langley. Land has already been designated and funding is an ongoing dialogue. TransLink is continuing to look at options.

  The East-West connectivity through Cloverdale would have been good but would impact on the Fraser Highway route and would have reduced the efficiency of the line. B-lines will be looked into to connect the areas.

- Using the Heritage Rail corridor was questioned and the Transportation Manager responded that the rail corridor was insufficient for the LRT and had too many restrictions.

2. **Honeybees and Pesticides**
File No. 5280-23

John Gibeau of Honeybee Centres in Surrey before the Committee provided information on the harmful effects of pesticides on honeybees. The following comments were made:

- Honeybee Centre is a commercial honey farm which rents bees to growers in the lower mainland. In 2014 6,800 colonies were placed in approximately 3,000 acres of fields which helped in the fruit production of approximately $50 million. The Centre also provides and handles the bees for the film industry (1 of 3 in North America).
- Neonicotinoids is a pesticide that comes from nicotine and is applied to fields through coating of various fruits, vegetables such as corn which is relatively safe. This pesticide was developed in the 1990's as a safer alternative to DDT and is widely used across North America on such crops as corn, fruit, berry, vegetable and flowers.
- Pesticides, in different forms, are used by fruit growers. Contracts with these growers are made so that pesticides are not used when bees are in the fields. Blowing dust from seeding (with pesticide covered seeds) kills the bees and pesticides absorbed through the soil, which then is absorbed by the plants can make bees sick.
- Recently, there have been problems in Europe and Ontario. Ontario beekeepers are suing Syngenta Canada and Bayer Crop Science for lost profits due to damaged livestock and contaminated equipment caused by Neonicotinoids. As a result of complaints from beekeepers in Europe, the European Commission has restricted the use of this class of pesticides for two years.
- There is no evidence in BC that bees have been affected by pesticides.
- The main concern is the Varroa mite, a fungus known as Nosema, and viruses that infect bees after the mite has fed on their blood and the virus is transferred within the hives.
- The Chair of the BC Agriculture Council stated that "If everyone went organic, yield would drop by 50% and there would be an outright risk of losing crops". There is also the fear that if Canada banned the pesticide and the US did not, local farmers would be unable to compete.

- A ban on any and all pesticides would be welcomed, but only if based on science, and executed with the cooperation from growers.

The Committee made the following comments:

- Why was the pesticide banned in Europe for 2 years? The Delegation responded that it was to see if the population of bees would increase. There are signs that the bees are healthier then banning pesticides should be considered. Pesticides are not transferred in the honey. In Canada the Federal Government has a policy ensuring that exports are of the highest quality.
- How do you deal with companies with large food companies like Costco and Safeway? It is very hard to comply with all demands. These companies use ways to intimidate growers to conform to their demands. Marketing ploys that are not factual when told enough become factual and when dictated to, based on lies, growers have to find ways to deal the downsides.
- How prevalent is the use of this chemical say on blueberries? The Delegation stated that based on his experience 40-60% is used before the bees go into the fields and then again afterwards. It is important to note that if bees smell or sense insecticide or fungicide they do not enter the area.
- In North America is there any evidence that there are colony collapses? The Delegate responded that classic pesticide poisoning is when bees collect pesticide in the fields and bring it back to the hives. Usually see dead bees outside of the hive afterwards. In Canada, Health Canada supervises beekeepers and ensures that no poisons are passed on. Monocyte and self-induced pesticide poisoning cause the hives to die which often is seen in the US where bee keepers are not regulated as strict.

The Chair thanked the Delegation for the information and stated that the topic of pesticide poisoning would be followed up by the Committee.

3. **Shade Tree Management Plan**
File No. 6300-01

Neal Aven, Urban Forestry & Environmental Programs Manager, Parks, Recreation and Culture before the Committee to present on the City's Shade Tree Management Plan. The following comments were made:

- The Programs Manager presented the draft Shade Tree Management Program.
- The City of Surrey has long recognized the economic, environmental, and social values and benefits of shade trees. The City's two guiding policy documents (the Sustainability Charter and the Official Community Plan) reflect the importance of trees in developing a sustainable City that is greener, safer, healthier, and beautiful.
- The Biodiversity Conservation Strategy highlights the importance of shade trees in providing important habitat connectivity throughout the urban matrix. The City's current public property shade tree inventory fits into the urban matrix of the Green Infrastructure Network.

- There are numerous City bylaws, policies, plans, and guidelines that reinforce the importance of trees. These include: Tree Preservation Policy (U1), Urban Forest Policy (U2), and City Tree Cutting Bylaw No. 5835. The Parks, Recreation & Culture Strategic Plan acknowledges the importance of trees and identified a need to review and improve tree planting and maintenance programs to ensure the long term sustainability of the City's shade trees. To that end, the Parks, Recreation & Culture Strategic Plan recommended that a Shade Tree Management Plan be completed.
- The purpose of the Shade Tree Management Plan is to provide direction for sustainable public property shade tree management, including a clear, meaningful, and achievable framework to plan, develop, maintain, and enhance street, park, and civic property shade trees over the long-term. Note that The Plan is only about individual trees and does not include forest stand trees. The City is a leader in public property shade tree management, and the development of this Plan was deemed necessary to take a reasoned and comprehensive review of its shade tree management in order to optimize the City's efforts.
- The City values trees for improving air quality, reducing heat, providing for wildlife, mitigating energy costs, beautifying the City, and increasing property values. Surrey Council, based on a shared understanding of the importance of shade trees, has instituted a substantial and well developed shade tree management program for the planting and maintenance of street, park, and civic property shade trees. The City currently has an inventory of more than 75,000 street shade trees and 20,000 park and civic property shade trees. And presently, approximately 5,000 new shade trees are planted annually.
- As part of this plan, the net benefit of the City's street, park, and civic property shade trees was calculated using a tool called i-Tree Streets. The calculation demonstrates that the benefits derived from the City's current inventory of shade trees outweigh the costs by a 2.55 to 1 ratio. This net benefit will increase in the future, as the City's shade tree inventory expands and matures over the coming decades, and with continued support from Surrey Council to ensure sufficient planting and maintenance programs.
- The urban environment presents many challenges to developing and maintaining shade trees. Growing conditions in urban environments are typically challenging for shade trees; trees are exposed to factors that increase mortality and shorten lifespan such as urban growth and development and infrastructure. Better tree protection measures and well-designed spaces for trees are necessary.
- Trees are exposed to other stressors including pest and diseases, windstorm events, and snow events. Integrated pest management programs and detailed storm response plans are important components of shade tree management.
- Climate change trends are leading to hotter and drier summers and wetter winters. The importance of, and benefits associated with, shade trees in the City of Surrey will increase substantially with the onset of climate change because trees effectively and directly buffer temperature extremes, reduce pollution associated with higher temperatures, and have a positive

influence on storm water management. The cumulative effects of all of these stressors over time can have potentially lasting and detrimental consequences on trees and, thus, on the people who live in close proximity to trees.

- Shade trees require comprehensive maintenance programs to optimize their growth and to ensure that public safety risks are minimized and that public health benefits are realized. For example, watering programs are necessary to ensure that the City's investment in trees is protected during our droughty summers. Pruning programs are required to ensure that trees develop sound structure. Root management programs are required to ensure that conflicts with infrastructure are minimized and mitigated, when necessary.
- The maintenance, planting, and management of public property shade trees is greatly enhanced through education, awareness, and stewardship (volunteer) programs. Benefits include reduction in damage and maintenance costs, increase in health and condition of the trees, as well as development of sense of community within neighbourhoods.
- The 4 strategic goals of the shade tree plan are protect, enhance, and increase the number of the City's shade trees with specific objectives within this goal to:
    - Plant 1,000 street trees per year over the next 10 years in old neighbourhoods
    - Plant 500 park trees per year over the next 10 years in existing parks
    - Review the effectiveness of Tree Cutting Bylaw No. 5835
    - Improve monitoring and enforcement of tree protection during development
- Manage the City's shade trees to achieve conservation goals defined in the Sustainability Charter, Climate Adaptation Strategy, and Biodiversity Conservation Strategy.

  Specific objectives within this goal include:
    - Plant trees in larger planting pits
    - Plant fewer maples and western red cedar
    - Select species that will be well adapted to Surrey's future climate projections
    - Divert wood chips to Surrey's biofuel facility (when it comes online)
- Develop and maintain strong community engagement, stewardship, and education programs that encourage support for the City's shade trees. Specific objectives within this goal include:
    - Increase the number of watering bags delivered to residents by 10% each year for next 5 years
    - Re-initiate the Great Tree Hunt
    - Develop and implement "Great Trees in Surrey" application to highlight special trees
    - Evaluate the community's interest in forming and participating in an advisory group that would assist the City in the management of shade trees

- Plant at least 200 shade trees per year through community shade tree planting opportunities

- Carry out best management practices for shade tree health and risk management in the interest of public safety and public health benefits. Specific objectives within this goal include:
  - Develop and implement tree root management policy, guidelines, and procedures
  - Develop and implement an integrated Storm Response Plan
  - Develop and implement an Integrated Pest Management Plan for street and park shade trees

- **Vision** - The City of Surrey's street, park and civic property shade trees are essential components of the environmental, social, and economic fabric of the City of Surrey. The City of Surrey conserves its existing shade trees and invests in the growth and long-term management of its street, park, and civic property shade trees. Surrey's residents and businesses value the benefits of a shade tree urban forest that is diverse, healthy, and abundant throughout the civic properties, parks, and streets of the City. Surrey's residents recognize the vital role that the City's shade trees play in contributing to a healthy and safe environment for people. The City of Surrey's street, park, and civic property shade tree management program exemplifies sound and innovative management practices, cultivates community engagement and stewardship, and is recognized internationally as centre for excellence in urban forestry.

- It is important to note that the numbers represent what is in the City's inventoried. There is approximately 26,000 trees not in the inventory.

The Committee made the following comments:

- Are coniferous trees the only trees involved? Most of the shade trees are deciduous. With respect to planting Douglas firs and western red cedars it is difficult when the space is not provided. Evergreen shade trees are being planted on north-south roads.

- Forested trees and private property trees are not included in the count.

- There is an enormous amount of biomass in the fall. What is the City doing about this? The expectation is that residents will clean up the leaves and will properly dispose of them in compost or organic waste.

- Getting the residents involved through education would be a great way to bring in the fall season.

- Challenges while pruning trees are being presented as roadways have to be kept clear and the trees need to be pruned back to ensure space is available for clear truck passage.

- It was noted that many areas have trees that have been pruned where canopies have been ruined and the esthetics are now ugly. The Programs Manager will look into the problem.

- The Programs Manager noted that since 1991, volunteers have planted over 10,000 trees throughout Surrey. Thousands of volunteers have made an

impact, including Community groups, elementary and secondary schools, local businesses and individuals who care about their environment

- Is there a program where individuals can join in to go out and plant trees. Yes the City has a planting program named Releaf.

  The Fall Releaf program runs throughout October where groups are invited to plant native trees and shrubs in Surrey parks. By planting, valuable food and shelter will be provided to wildlife, and boost biodiversity in parks and natural areas. More information can be found at: http://www.surrey.ca/community/504.aspx#sthash.Dkv18L6f.dpuf

C. OUTSTANDING BUSINESS

1. There was no outstanding business.

D. NEW BUSINESS

1. There was no new business.

F. CORRESPONDENCE

1. Letter to Mayor and Council dated August 21, 2014, regarding the approval of the Fraser Surrey Docks Direct Transfer Coal Facility Project.

2. Copy of letter from Wayne Wright, Mayor, New Westminster to Robin Silvester, President and CEO, Port Metro Vancouver in regards to the decision on the Fraser Surrey Docks Direct Transfer Coal Facility Project.

The Chair informed the Committee that PipeUp had thanked ESAC for their support in the Kinder Morgan Project and for Council's motion to not support the proposed pipeline.

G. INFORMATION ITEMS

1. **Biodiversity Conservation Strategy** – Corporate Report R141 was received by Council July 21, 2014 - there was concern about the timeline where ESAC will be involved. As the environmental study proceeds the Chair noted that ESAC would become involved.

2. **South Campbell Heights Special Study area** – Corporate Report R152 adopted by Council September 8, 2014 – the Environmental Study was the only item in the report that was approved. There is land within the area that could/should be designated ALR. This all relates back to the Biodiversity Conservation Strategy.

3. **Agricultural Food and Safety Advisory Committee (AFSAC) Update**

There was no update to be given.

4. Development Advisory Committee (DAC) Update

There was no update to be given.

H. OTHER BUSINESS

1. Take the Dip with US
File No. 0330-20

On Sunday, September 28 "Take the Dip with US" will take place. This project is to take action against water pollution in Surrey's creeks, streams and rivers. Kits can be picked up at all libraries and recreation centers. The kits contain all instructions to sample water from a stream or pond. The sampling will help to make residents aware of the streams in their community and their impacts to them. More information is available at:
http://www.surrey.ca/community/15653.aspx#sthash.CQjdUEdz.dpuf

2. Fraser Surrey Docks
File No. 5650-20

As Port Metro Vancouver (PMV) has approved the Fraser Surrey Docks expansion the reaction from the City on the allowed expansion was questioned. The Chair stated that work is being done with the City and PMV in regards to the issues affecting the City. A major announcement was made September 16 around working very hard with the Federal Government to have the railway moved out of South Surrey.

3. Tree Planning
File No. 6300-01

It was suggested that ESAC request someone from Planning attend an ESAC meeting to provide information on the process around the creation of tree planning when a subdivision of property is proposed and how the process protects the greatest number of trees, versus a strategy of not allowing any tree cutting at the time of subdivision, other than that required to provide servicing. Tree cutting should only be allowed when the final owner of a lot is known and that owner has proposed a house plan for the lot in question.

I. NEXT MEETING

The next meeting of the Environmental Sustainability Advisory Committee will be held on **Wednesday, October 15, 2014** at 6:00 p.m. at City Hall, 2.E Community Room B.

J. ADJOURNMENT

It was Moved by B. Campbell
Seconded by G. James
That the regular meeting of the Environmental Sustainability Advisory Committee meeting do now adjourn.
Carried

The Environmental Sustainability Advisory Committee adjourned at 8:09 pm.

Jane Sullivan, City Clerk

Councillor Hayne, Chair