

# THE WAY WE GREEN

## **SUMMARY OF**

Public and Stakeholder Input

**OCTOBER AND NOVEMBER 2010**

Appendix 1

## **Public Forum**

- A. Sample of a Response Form
- B. Response Form Comments
- C. Conversation Café Comments

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# Appendix 1 – Public Forum

A public forum was held at City Hall on November 3 and 4, 2010 to provide interested citizens with an opportunity to learn about, assess and comment on potential policy statements in *The Way We Green White Paper*. More than 325 citizens attended the forum.

Forum participants could visit any or all of six “stations” that provided information about the following topics addressed in *The Way We Green White Paper*:

- Energy and Climate Change
- Water
- Food Security
- Air Quality
- Biodiversity
- Waste Management and Ecological Footprint

At each “station,” there was a brief slide show and a staff member was available to answer questions. Participants were asked to complete a response form and submit their views. All response forms asked the same question, “*Should these ideas be recommended to City Council*” – only differentiating in the topic they covered and the proposed policies from *The Way We Green White Paper* that they presented for comment.

Additionally, as part of the public forum, four “conversation café” sessions were hosted. In each session, a moderator asked participants a question, and people were encouraged to raise any ideas that they wished to during the conversation. The moderator took notes, which were displayed on a screen during the conversations. Approximately 50 people took part in one or more of the conversations (number is approximated as people came and went during the conversations).

This document, *Appendix 1 to the The Way We Green, Summary of Public and Stakeholder Input, October and November 2010*, includes:

- A. A sample of the type of response form used (Air)
- B. The comments received on the response forms completed and submitted during the public forum
- C. The moderator’s notes taken during the “conversation café” discussions

# 1A: Public Forum, Sample of Response Form

PRESERVE AND SUSTAIN EDMONTON'S ENVIRONMENT –  
**THE WAY WE GREEN**

## AIR QUALITY

*How do we maintain our air quality as the city and region grow?*

Edmonton's air quality has improved significantly since the 1970s. The percentage of "Good" air quality days in 2009— as measured by the provincial Air Quality Index—was approximately 96%. However, as the city grows, the impacts of vehicle travel and industrial emissions may increase. Our goal is that Edmonton's air must be fresh, clean and safe.

*The Way We Green* could recommend the following policies to City Council which are intended to strengthen the City's existing commitment to air quality.

**Objective**

Edmonton's air quality is managed to meet the highest standard in a manner that supports health and ecosystem wellbeing.

*We'd like to hear your opinion (considering the benefits and the costs) ...do you think the following ideas should be recommended to City Council?*

<b>Proposed Policies</b>	<b>Agree</b>	<b>Agree conditionally</b>	<b>Disagree</b>	<b>Unsure</b>
Should these ideas be recommended to City Council?				
Increase air quality monitoring throughout Edmonton and make information available to Edmontonians on a real time basis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adopt higher air quality standards for Edmonton – i.e., air quality guidelines recommended by the World Health Organization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Comments:**

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*If you require more space for comments, please use the reverse side of this sheet...*

PLEASE HAND IN YOUR COMPLETED RESPONSE FORM BEFORE LEAVING. THANK YOU!

# 1B: Public Forum, Response Form Comments

## Energy – Part A (energy efficiency proposals)

A few other things I'd like to see started and continued: grants and other funding provided to owners of older homes to "green" their homes.

A. Don't really need any additional neighbourhoods - all renovations and infill should be energy efficient. We need a hard line around the city to prevent sprawl.

A. Focus on high density-high efficiency housing.

A. It should/could not be a "required" but the low efficient options should perhaps not be available so it becomes a "standards association" issue.

A. New homes are already much improved over homes from even 20 years ago. Still, much can be done to lower cost and bureaucratic barriers to innovative new housing and to reduce payback time on retrofits.

A. New neighbourhoods to me sounds like more sprawl. I don't think we need any new neighbourhoods. We should focus exclusively on densifying the existing neighbourhoods.

A. Not only neighbourhoods should be energy efficient, but there should be incentives to retro-fit homes and older neighbourhoods. Regulations should be changed to allow for more innovative housing options (different energy sources, thus not requiring gas hook-ups; incentives to increase density in existing neighbourhoods; encouragement to develop green roofs or larger scale combined residential/commercial/agricultural buildings; changing development standards to promote a community building with extensive lands around, rather than dozens of disconnected McMansions on sterile fenced yards).

A. Not sure this would work - could be anything from high efficiency district energy systems to smaller home sizes.

A. What level of energy efficiency? Yes, but needs to be reasonable and emphasize economic benefits to be appealing to the consumer.

Adopt a system which allows residential homes to return power to the grid off solar efficient homes.

All building codes should be changed so that the City Centre Airport is just an example of model sustainability. State as a scientific fact that oil will run out so that everyone can truly understand and appreciate what our lives are going to be without. Reduce consumption while we can make the decision.

All excellent ideas - the sooner they are implemented, the better. In the long-run energy efficiency etc. saves money as well as the environment. Sometimes the upfront costs are higher - so could City arrange for longer/higher mortgages - paid off with the energy savings.

All of the proposed policies are structurally sound. Look forward to the execution of them and will follow their development closely. Start soon.

All very important initiatives.

An energy efficient city form requires employment nodes of a range of employment types within the city. A residential city centre airport development will encourage even more industrial sprawl outside and at the fringes of the city. A proposal to encourage high tech industries and research park should be seriously considered before pursuing solely residential

Another area with high potential for improvement: More efficient lighting. Lighting curfews, reduce lighting requirements (like Ottawa), efficient and full cut-off lighting, dimming requirements on illuminated advertising, limits on commercial lighting - all are relatively easy ways to save energy, save money, and reduce environmental impact.

Apartment/condo living is stressful often with imposed costs. Buildings converted to condos are not sound proof often curbing the ability to have parties, playing of instruments (piano, guitar) using gym equipment. The disruption, listening to arguments, problems if you are working the night shift are issues adding to the urban sprawl.

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B. Also use zoning and planning! I've heard that we're currently expecting a huge portion of our future population will be accommodated outside of the Henday. This is ridiculous! We should be using our existing space, not eating up farmland and wildlife habitat.

B. As long as it is combined with efforts to ensure adequate affordable housing - supporting mixed neighbourhoods - not just making downtown elite urban professionals.

B. Is this to make rents cheaper in cores? Or more expensive the further out? Both?

B. Not convinced taxation is the best method to discourage urban sprawl; most new communities are giant houses meaning these people have money to pay extra to live there. Why doesn't the City put its foot down and stop urban sprawl altogether and start revitalizing older neighbourhoods?

B. Pedways enhance walkability and should be built or encouraged over heavy traffic roads.

Bylaws need to be penned soon to support TWWG as development is growing the city out and we just can't afford to support this with infrastructure. Zoning bylaws should be changed immediately to require all commercial properties to be walkable - no dodging cars in strip malls. While requiring all new development to be cutting edge efficient, it may not be fully realistic as costs may price people out of the market in the urban or suburban areas.

C. Airport does have some use (STARS) so a small part of the lands should be preserved for small-scale air transportation, while still developing most of the land into a new community. Note, in future, personal air transportation may arise as an alternative to cars so having a small air traffic node could be useful.

C. Airport lands if developed should be a fully eco-friendly, environmentally contributing space by making them a living green space - natural plant and tree species. Then create a wildlife friendly area with retreat areas for temporary humans. The areas from the Quarters to 124 Street and top of downtown river valley to 107 Avenue could be bylawed to encourage much higher density human population (i.e., 30,000 + +). Use geo thermal energy, etc. "The Way We Green" should forbid all use of green coloured paint, plastics, etc. as these mock living healthy green!

C. City Centre Airport lands will be a burden that developers cannot afford to build on and with the clean-up etc. - better to look at the whole city. Airport model will be a white elephant.

C. Developing the airport as a model is a great idea but you don't have to invent it. Just find someone who has already done it and get a head start on it.

C. Is it possible to develop this land that has been used industrially for many years? What remediation processes should we start now so that the land is healthy and whole for all creatures that will live on it and around it? Does this need to be a community of houses and people only or would it be possible to open up the green space for conservation?

C. Make it into a big park.

C. Much wiser to develop the airport land as a model of sustainable development. Green space seems like the most rational way to use that space of land, rather than a useless airport (only available to certain businesses).

C. Rather than development and destruction, the City Airport should be viewed as an extremely valuable resource - a transportation hub that will likely be increasingly valuable to infrastructure needs in coming decades. Assuming current aircraft technology stays the same in perpetuity is folly. Tearing down the airport now will probably be viewed in the same light as the short-sighted dismantling of the operational trolley system is viewed today.

C. The City Centre Airport might not be a sound location for housing as it's been a contaminated commercial zone for a long time. Is the ground habitable? How much money will be needed to develop it on an ecological level?

C. What about having the whole project based on cooperative models and city-owned co-ops? I'm not in support of a few developers making bucket loads of money on something that could be a progressive project in all respects: environmental, social, cultural and economic.

Co-generation and heating/cooling districts where energy is shared within a community (i.e. Hammerby Sjostad, Stockholm, Sweden).

Conditionally agree with new neighbourhoods having to be energy efficient as really we shouldn't be building any new neighbourhoods when there are 40+ still under development. However, whatever new neighbourhoods are developed should be required to be transit-oriented.

Consider economic impacts too.

Consider implementing a development boundary around the city (e.g. Henday) to discourage sprawl. Create incentives for urban densification (encourage development of empty lots). D. Adoption of world-class energy-efficient standards needs to go hand-in-hand with adoption of higher design standards. Promote diversity of housing in neighbourhoods; especially create incentives for younger families to be able to live in mature neighbourhoods. Move toward increased use of electricity for energy end uses, but it must be generated with renewable resources. Need to tackle the mind set of Edmontonians in some way to get us to buy in to all these initiatives. Travel via energy efficient means is a good idea but there must be infrastructure in place (e.g., commuter bicycle networks, LRT).

Council should not allow developers to build new houses that are not energy efficient (regardless of increased costs to homeowners) and communities should be designed to be less energy consumptive.

D. Also push province to update building codes. City uses LEED which is good but some buildings not certified. I think this dilutes the intent of LEED and the City should not do this.

D. City buildings? Ok, but not for residences. LEED certification = big money and ignores many architectural models that aren't high tech but make sense - small dwellings, high insulation, etc.

D. Encourage green roofs by removing such area from the floor area ratio calculation. And aesthetic standards - no crap.

D. I am always leery of "world-class" - it often reflects the best publicity rather than the best way. E. "energy-efficiency" - rather, the most efficient and effective way to generate energy.

D. I hope the standards have more teeth than the accessibility standards in the building code.

D. If the airport is developed, the building codes for downtown towers will change and would be the perfect time to implement "green" rules.

D. New buildings - new city buildings or all new buildings? Should be all new buildings - tie to permit process. All new City buildings should be at least LEED Gold.

E. Passive solar heating has benefit; however, I would see geo thermal heating as a zoning regulation more productive.

E. This would be great but some neighbourhoods just aren't in a good north/south facing position and they would not be able to change that. New communities sure could, but isn't that encouraging urban sprawl?

Edmonton needs to move forward to becoming a leader in energy efficiency. Relying on unsustainable products such as oil and gas is not responsible. Renewable and sustainable solutions to energy for our homes, our vehicles and our public transit are vital. Let's get our LRT off of coal!! Creating green, energy efficient and sustainable communities is the way to move us forward.

Edmonton's density and sprawl is just fine and offers good quality of life. The only true detriment is the proliferation of gasoline burning transportation. Once the mode of transport is changed (i.e., electric cars or bio-engines, etc.) things (i.e., sprawl) are fine the way they are. Energy efficiency yes but it must be kept affordable to be real and thus must be paced so that mass production will help to increase affordability.

Encourage homeowners to be more energy efficient via promoting ideas, through education of our young children so they can prepare for the future.

Energy efficiency is difficult in a northern climate, in regards to heating especially. Wasteful building practices (excessive glazing, forced air heating, inefficient) should be addressed through municipal regulations and building codes.

Energy efficient standards are subjective. LEED standards miss key points in energy reduction. World class standards will hinder small business.

Fantastic policies which I support entirely. Key is translating these policies into accessible strategies for individuals to get involved. I'm inspired to see city-wide and community-wide urban planning initiatives, that become model communities to

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base a standard of sustainability against, particularly because our cold climate conditions make the energy debate even more challenging. Working on residential scale energy-efficiency initiatives is great but if the City has the capacity to think on a larger scale and has the resources to build those initiatives into reality, this should be the focus. People in Edmonton are ready for it, the business case is there and now we need to make these changes accessible.

Get off fossil fuels! We need solar and wind farms, rain collection, LEED and SEED and ISO14001. Redesign communities into self-sufficient nodes.

Good policies but how will they be implemented?

Higher taxation required for people who consume more energy (truck drivers, large homeowners).

How about some efficiency programs favouring water and electricity conservation, funded by a special charge for developing new lots in the suburbs. Save money in extending services to new areas.

How can you get province to discourage sprawl on land outside city limits? Can City refuse to improve road access?

How will you deal or recommend changes to existing infrastructure - worst offenders of energy consumption.

How will you get the word out to the downtown community leagues, condo boards, management development properties, developers, to start the conversation of implementing some of the above proposed policies if adopted? I live downtown and see the "empty spaces" as a lot of roof tops that could harness alternative, renewable power.

I support all of these policies - however, I hope being/including energy efficiency in homes is more affordable.

If energy efficient homes were more cost effective and accessible; there probably would be more interest. Also, if industries were more proactive in educating public; things may be easier to access.

Important to start enforcing higher energy efficient standards so it can become more affordable for all.

Include energy efficiency in building codes (south facing roof, passive solar, good insulation and windows, etc.). Require solar panels on each new industrial building.

Infill development with emphasis on walkable "local" living - mixed use to reduce our auto dependency

Is there a plan for centralized co-generation systems for heating electricity being considered? Systems would still likely utilize fossil fuel; but systems being developed in/around Calgary (Enmax) seem a reasonable efficiency gain.

It is the City's responsibility to set the bar higher on green development and show leadership in building when it comes to City assets. However, flexibility is also needed to let the development industry propose innovative solutions.

Key is to change zoning and building codes then all renovations and retrofits will have to be energy efficient. Can you have a condition for business licences that requires construction related companies to train and/or require their workers to learn energy-efficient building techniques?

LEED certified buildings and stopping sprawl are great initiatives. Sprawl, specifically, prevents most of the City's goals from being properly achieved. It is economically disruptive, increases reliance on the personal automobile, and prevents reasonable development of the city.

Legislation must be implemented to make these things happen. The development industry will not initiate this change.

Look at what Germany did with renewable energy and its infrastructure. Read Chris Turner's "The Great Leap Sideways."

LRT expansion to encourage efficient use of land and energy for transportation.

Make it a law that new developments be built to LEED standards. Get companies like Rona, Canadian Tire, etc. to only sell energy-efficient appliances.

May need to work with provincial and federal levels to develop residential standards. Note: built-form must be defined as all built and development. Therefore, these policies must include sustainable sites as much as it includes building construction, infrastructure construction, and building operation/maintenance.

Need a strategy to retrofit older houses, businesses and office space. Publish an "energy budget" report every year that summarizes Edmonton's energy use by sector (home heating, electric, oil, coal, etc.). New building codes (R-2000 min.), bike and LRT.



New building standards would be ideal for all buildings but what of looking at the whole picture? Aim for no net loss biodiversity and GHGs, reuse of grey water, position buildings so they make sense for solar heating, insulation.

Now preserve agricultural land - no more sprawl.

Please don't jump on the newest energy efficient fad! Renewable resources should be used as opposed to, say, lithium!

Policy on development of 'amazing looking' (LEED) buildings, - villages for diversification, will encourage people to live there. The buildings downtown are lacking imagination for the 21st Century - why pay into it?

Pricing and taxation is not the way to discourage sprawl and encourage densification. It will just create inequality amongst Edmontonians. Also, there needs to be focus on older buildings and communities since most of them are not energy efficient.

Promoting energy efficiency and discouraging sprawl are certainly laudable goals but must be balanced with responsible community development and diversity. Over-promoting infill in some areas can lead to over-abundance of affordable housing projects, whereas these should be balanced across communities.

Re: airport lands - would prefer that it not be developed - make it a huge urban forest - Central Park - now that's visionary!

Really investing in alternative and renewable resources in order to end our dependency on fossil fuels by encouraging individuals and small business toward producing own energy off the grid.

Reduce light pollution! The city is "renovating" neighbourhoods and dictating high waste, low efficiency lighting and not reducing light. This is wasteful and unsafe for residents.

Residential energy usage in Edmonton: heating 65%; cooling 3%; hot water 17%; electricity 17%. Focus needs to be on managing the demand side of these needs by using proven alternate energy technologies.

Residents in new "sprawl" neighbourhoods don't feel the full impact of the housing location choice as they don't have to bear the full cost of all city services. Applying a more real development cost could reduce these developments.

Retrofitting older residential/commercial buildings is critical. Support major upgrade to provincial building code. Improved pedestrian/cyclist support in all new and existing commercial/industrial development.

Revitalization must include a major effort on new energy - passive and active solar. Distributed heat and power systems that are designed to produce zero waste. The arena district must be the high profile laboratory to change our anaemic green energy reputation.

Seems that there must be a balance struck with the requirements economically to bring business to Edmonton with the need to do it as beneficially environmentally as possible.

Sustainable design of neighbourhoods should be a priority, with consideration of social as well as environmental factors. Establish a "green belt" at current city limits to limit urban sprawl and encourage redevelopment of central areas.

Tax incentives for rooftop solar installations - either residential or commercial (or subsidies) and grid metering - sale of excess power to EPCOR.

The 25% infill goal laid out in "The Way We Grow" is too low! Stop encouraging sprawl and set the goal closer to 50 or 60% at least!

The biggest challenge will be retrofitting existing stock. At the very least, new developments must be held to high standards. Passivhaus at the very least. To get the old stock up to speed, we need a feed-in-tariff and green trades. Encourage programs at colleges to produce skilled green workers. And develop policy to ensure a stable market for their services. Use local improvement charges to finance retrofits so the loan is tied to the property, rather than homeowners. Remove the upfront capital costs at least for retrofits with 10-15 year payback.

There is so much the City could do for energy efficiency. We need energy to live and if that is disturbed we're in trouble. The U.S. government is focused on energy efficiency for the security of that resource. Reducing the monthly bills for citizens is a huge challenge but very important. The City airport should be contributing to energy production and not be a huge draw on resources. New neighbourhoods are being developed around lakes for stormwater runoff and control. This resource could be used to heat/cool homes around lakes using pond geothermal loops. Light pollution as the city grows

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is also a concern. Use of LED, full shields, and sensors/timers could be utilized across the city to lower utility costs, preserve the night sky and still provide the security needed around neighbourhoods. City Centre Airport should be developed on a net zero approach. Solar, geothermal, wind could all be utilized to make this area an attractive place to live, not just visually but also financially. Focus on reducing monthly costs for Edmontonians and provide a way for each home to contribute. There's way more homes that could contribute making the utilities job a lot less painful.

These are great as long as they do not discriminate those at a financial disadvantage.

This is important. Take action NOW!!

To reduce urban sprawl, developers should be strongly encouraged by incentives to develop present vacant areas as a condition to developing new areas to increase density.

Transportation: eliminate private cars. Encourage walking (trails/pedways), bicycles (trails/lanes) and public transit (e.g., free for seniors).

Urban sprawl is a short term solution that will not work. Not only does it increase carbon emissions and energy use, urban sprawl neighbourhoods have a decreased sense of community and ability to grow uniquely.

Use transitions towns to partner with 5 pilot leagues to be carbon neutral as goal. Feed-in-tariff/bulk buy alternative energy program.

Utilize roof tops for solar panels to tie into the grid. New commercial buildings could be regulated to include solar in the design.

We all need to use energy efficient items and be better educated about how to be more sustainable.

We are focusing too much on new "blank slate" opportunities at the expense of small incremental changes. A great example is the City Centre Airport. I like the idea of development but why there? Why not all the vacant areas that are already on an LRT line or in a developed neighbourhood?

We need better public transportation in Edmonton! Discourage urban sprawl and the use of cars. City Centre Airport needs to have sustainable social-mix housing.

We need to change laws and regulations that allow people to be green. Get return on infrastructure invested to generate green energy. Currently homeowners producing excess energy only get paid for the electricity going to grid. Unlike large power companies that can write off their infrastructure costs.

We should talk to the provincial government about the 2 billion dollars they had earmarked for carbon capture and see if we cannot apply for a portion of that money if we can prove we have projects that reduce our CO2 emissions by the amount that would have gone into carbon capture. If homeowners could recoup their retrofit investment within 7 years instead of 20, that may help. Encourage companies to adopt flex time (easier to avoid traffic jams, easier for bus commuters). Consider adjusting traffic lights during off peak hours to flashing red/flashing amber to reduce unnecessary idling at lights.

Welcome all of these policies. Ultimately, it would support citizens in personal sustainable initiatives.

Would like to see the City help improve the existing housing/building stock to improve energy efficiency. Am very excited with the potential in the development of the City Airport lands - I might consider relocating if it is progressive.

You are right about coal but why have you ignored the use of oil to power our cars? Why would you ignore such a major contributor to GHGs?

Young family building a new home: putting in geothermal heating. Would like the City to offer grants to families who utilize these services to ensure energy efficiency.

## Energy – Part B (proposals affecting energy technology and supply)

(from Edmonton Journal) The energy company that used to be EPCOR is trying to weasel out of the regulations laid out earlier - shocking.

A. & B. Depends on how electricity is generated.

A. Depending on what renewable sources are used.

A. Follow through with proposed LRT systems.

A. How would this be done? With the cold temperatures, high housing costs in central (downtown) Edmonton and poor public transportation - it's hard to consider alternative efficient transportation.

A. How? Give all the drivers of 20-year old pick-ups smart cars?

A. Hybrid taxis, bus, more trains (not all at once). Let people that want oil have it but at a very high price, roll revenues into social aid/health care expense.

A. This statement weakens the objective; it is about more than resiliency.

All energy will eventually be alternative. By transforming/converting now, we will need to plan a future that is in touch with the reality that non-renewables are just that.

All excellent proposals.

Although personally willing to commit to local improvement changes, they give an impression that alternate sources of energy are "special," unaffordable or only for the elite that can afford to pay extra. Instead, we need to promote the image that alternative sources of energy are smart, affordable and for everyone. In other words, if the City is unwilling to commit, why should we expect citizens to commit?

An energy strategy that includes more renewable capacity requires a full cost accounting to ensure prudence.

As much as this province is gas and coal-powered, there needs to be a movement toward renewable energy.

Edmontonians need to be reminded that there are other choices. The City should give the effort to implement and invest in energies such as wind in southern Alberta. In the long-run it would benefit us to promote the sources of energy that are less harmful to the environment.

B. Coal is cheap - where to find electricity? Wind? Buy it? Coal vs. nuclear? What's the option, gas from landfill... It seems like a good idea but more information is needed. I'm not willing to risk nuclear and not willing to pay major increases.

B. How do we ensure security of energy supply? It is possible to buy EPCOR back as a public utility again? Dedicate bike lanes within existing traffic/roadway. Safety is very important to encourage people to incorporate cycling into their personal transport plan. Enforcement of bus lanes to encourage multi-person vehicles (bylaw/peace officers??). Bike more!! Remediation of industrial lands for food security - public lands for community gardens and encourage people to grow and share what they grow in garden markets/community food swaps/sharings. A lot of sprawl and spreading thin of community resources has already occurred. What are we doing now to make sure existing new neighbourhoods become more populated and sustainable within the borders? So that we are not encouraging "ghetto" segregation of community populations because the location is "too far - not desirable."

B. I think realistically this should also include natural gas. City should do more through Capital Power, seems Enmax is way more progressive in this respect.

B. Invest in alternative energy solutions. Review models in place for cycle paths, market alternative transportation (e.g., cycling). Education including safety and awareness.

B. What about decreasing the need for transportation by encouraging developments to build to meet needs of a community, so people don't have to travel, having grocery stores, small offices, libraries, etc. all within walking distance of their homes.

Bring back trolleys to inner city. I am installing some low key solar heating at home.

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Build an extensive LRT system that makes driving more difficult. The LRT system should be powered completely on renewable energy sources.

Bylaw changes so that all new residential buildings are net zero homes. Encouraging solar panels. City's policy/bylaw should have bike lanes incorporated into design standards as well as increased LRT routes to help reduce amount of fuel used. We should encourage alternative energy within the city - LED light fixtures for street lights.

City should help communities green to maximize savings to residents by repowering with solar/wind.

D. Allocation must be transparent.

D. Don't know what this means.

D. Need efforts to reduce consumption, not just shift consumption to an alternate.

D. Not sure what this means - taxes? Alternative energy development could be financed through savings achieved by sustainable measures.

D. Would be dangerous to start applying local improvement fees as it may polarize the community. We should encourage, not necessarily force, change.

Decisions made on major projects need to consider future impacts on our children and children's children - not just "the future" in the sense of the next election. Development of our community should not be driven by the profit motives of the Mayor's friends. Prime agricultural land, especially in NE, should be preserved for agriculture not turned into suburbs for tax revenues. A larger view is needed and development and growth should not be pursued in any fashion unless it is justified. The provincial government should be encouraged to significantly raise the royalties charged to companies extracting oil and other fossil fuel resources in the province, and some of those revenues invested in alternate energy sources.

Disagree mainly on policies that involve interfering with market mechanisms - I don't think those are in the proper role of municipalities.

Do a lot of public education so the public knows why it's important.

E. this will happen if it makes sense.

E. Valuable resources - i.e., it is not just fossil fuels that pose a problem.

Edmonton should promote economic development that is not oil sands dependent so that the city will continue to prosper even if development of the oil sands ceases as a result of political or economic pressures.

Edmonton's green plan will find greater success both in achievement and outcomes if it focuses more on energy efficiency than renewable energy. The latter is for industry and provincial/federal powers to solve.

Emphasize business opportunities retrofitting houses. UofA research in bio fuels, solar link with local. Have a contest - building an Edmonton e-car.

Emphasize dramatically reducing energy consumption by both individuals and business/corporation. Investment in bicycle and pedestrian pathways. Diversify our economy, shift away from oil and gas and invest in industry that does not rely on a lot of energy or produce CO<sub>2</sub>. Support local businesses, not corporate takeover.

Encourage geo thermal.

Encourage the use of natural gas fired power plants vs. coal. Buildings should be built in a way to use passive heat from sun as well as channel natural light to make for less use of electric lighting.

Energy and transportation are inextricably linked. Need to show Edmontonians that not everything needs a car. Make life better for non-motorized transport, i.e., 20 km/hour speed limit in all residential areas to promote the idea that the car is not the sole legitimate road user.

Expand solar energy subsidy program - people are interested! Explore energy production from waste. Explore wind energy.

Expanding the LRT will be crucial in making travel more energy efficient in Edmonton.

F. An area with large quantities of fossil fuels right now, I believe it's better for other cities to explore, test and adopt new technologies first. If they work, great, then maybe Edmonton will look at it.

F. Encourage private involvement to offset costs to City.

F. Isn't this a provincial/federal role?

F. Out of City's scope.

F. Tax incentives to companies that research these new technologies? Make Edmonton a hub/destination for this type of research. Encourage ordinary Edmontonians to produce their own sustainable energy (houses with solar, PV, etc.).

F. We don't need to find new technologies - they already exist and are being used and developed elsewhere.

F. We need to use research/technologies developed elsewhere too.

Feed-in-tariff at least a pilot program in 5 leagues.

Finance alternative energy through feed-in-tariffs. The German model works! Every owner of a solar panel can be an entrepreneur. Allow set up of windmills in TUC for commercial generation w/feed-in-tariffs. If the province does not get their act together, let's have feed-in-tariffs in the city!

Financial incentives for homeowners to purchase PV all or solar hot water heating.

Focus on limiting daily transportation needs. Energy consumption and poor housing planning go hand in hand (increase solar gain/decrease fuel usage, etc.) - start with that.

Future development permits must be tied to density! For example - a single family home may not be replaced with another beyond the date when density targets increase - it might be replaced with a duplex or town home or mobile home until 2020. After which an entire block must go high density sustainable.

Geo thermal heating and power for all new city buildings, along with passive solar heating. Zero net energy usage for heating - already being tested successfully by the City I believe.

How about encouraging (via tax breaks?) small-scale distributed energy generation! And building some of it, too - small scale bio fuel generation or natural gas with co-generation.

How will City move their own fleet to this? Why aren't departments that use vehicles to get around using current technology, i.e., hybrid vehicles, smart cars, etc. and how will this department move or change corporate services/transportation/etc. to do this?

I don't think more charges is the answer to finance alternative energy. You have to encourage people to adopt alternatives and a good way for this is financial incentives (grants, etc.) Incentives are a win/win for everybody; homeowners, businesses (increased jobs), utility (decreased demand, greater chance to export). Promoting alternatives in the city airport, new Oilers arena, and especially in homes is the right thing to do.

I support renewable energy, but the easy, cheap and publicly palatable solution is conservation and reduction in consumption, so this needs to be a focus. Increasing support for non-personal vehicle transportation is critical: transit, walking, and cycling need to be a priority. Parking should be made more difficult (the "stick") and alternatives more attractive (the "carrot").

If renewables need to be heavily subsidized, it's not worth it. At the moment, neither wind nor solar is economically viable. But nuclear fusion in 10 or 20 years may reduce dependence on fossil fuels effectively.

Improve public transit.

Integrate bicycle lane into the road so that people on bikes will be secure!

Key amend MDP to require 50% or less of all new development to be on outside edges of 50% or more in the inner areas of the city. Work with community groups to explore, test and adopt new technologies" i.e., GEA, Sustainable Works, Solar Alberta Society (formerly SESCI).

LRT expansion has made an impact on our area. Bus connection to the international airport is a great idea. A low fare will make sure ridership is good. Please advertise it and promote it more - saves energy and money. What about an LRT between Edmonton and Calgary?

## Public Forum

Make downtown an idle-free zone (in Japan buses already do this whenever they stop at a light). ETS needs more hybrid/electric buses but we need to stop burning so much coal. Perhaps a way to encourage people to buy bus passes? Subsidize more? Improve service as well.

Make parking lots free and have more available for people taking the LRT. What about wind energy? Making solar panels cheaper, more readily available and offer subsidies to those who use renewable energy.

More high-rise building (residences) = less use of cars/energy. Public transport. Muni airport to Villeneuve. Forget Indy and its pollution, air, noise, etc.

My overriding concern is affordability, timing, practicality. It must be recognized that the economy of this city depends on the source we want to eliminate. If oil would shut down today, our economy would collapse and we could become a ghost city like Detroit. Change must be gradual and careful - perhaps industries that use hydrocarbons for higher purposes than burning them would be ideal.

Need to begin investing in different economies to head away from use of oil and gas. Transportation within the city is a good way: bicycle paths, walking paths, expansion of LRT.

Of particular interest is the ramping up of renewable energy capacity. Any and all methods need to be tried in order to encourage its development. Credits, incentives, feed-in-tariff, etc.

Oil will not last forever; therefore a transition phase to new renewable energy is essential. Rewards for "green" innovation and consequences for heavy users of fossil fuels could help people invest in a transition.

Please improve bike paths! Give money to the Bike Transit Plan! Please! Please!

Provide monetary incentives to homeowners and businesses to make their dwellings net zero ready and to install renewable sources of energy (e.g., solar panels).

Renewable energy is the key!

Strategies like the Bicycle Transportation Plan need to be implemented to make cycling more viable for more residents. What happened to promised hybrid buses to replace trolleys? Seems like we make promises and then cheap out - plans are fine but action needs to follow. Licensing of taxis should be tied to such vehicles being energy efficient.

Taxation on non-work vehicles - unnecessary big trucks. Incentives for public transit, carpooling, cycle/walk commuting.

The City needs to promote renewable sources of energy. I'd like to see established technology used rather than investing in new technology.

The technology already exists.

There are several ways to reduce the amount of oil used day to day here in Edmonton - the use of public transportation speaks to me. If more attention was given to ETS or LRT, or perhaps rewards given to transportation users (lower price and more accessibility) I'm certain more people would use these services.

These are good as long as they are done well so that social, economic and environment are balanced.

These are the most important things the City can be focused on by far...our reputation has been compromised by the tar sands issue and we have a lot of ground to counter balance those activities with more sustainable solutions. We will be the ones that suffer if we don't.

This is impossible! Can only happen if City moves every worker close to where they work and closes the entrances to the city for all the commuter traffic. Better not give up on coal just yet. You would be better off supporting technology to improve the ways coal is used.

Transition from coal - natural gas - renewables in a simple manner. Create incentives not taxes and fees to facilitate the transition and change behaviour.

Use alternate energy as a wholistic approach, i.e., wind energy sometimes exceeds line capacity then excess electric energy should be used to generate hydrogen - the H<sub>2</sub> is then stored and when wind is less then the stored H<sub>2</sub> is used to fuel cells to compensate for the shortfall.

Vastly restructuring our transportation system; its frequency, availability and affordability. Creating a sprawled LRT will not adequately address issues of climate change appropriately.

We can start by promoting better land use plans - higher density and mixed use - and more sustainable transportation options. I do not have a car - I bike, bus and walk. But getting around is not always simple. There are many areas of our city which are poorly served by bus routes, have no sidewalks, and are difficult to bike to/through. Oliver has many areas where there are no sidewalks and we are a low priority for the City to add them. Our condo was built less than 10 years ago and the developer was only required to put a sidewalk on the north side, not the east side. Now it will cost our building about \$100,000 to build a sidewalk, nearly \$1000 per unit owner. If the developer had built it at the time and passed the cost on to initial buyers, the extra \$1000 wouldn't have been noticed. Now it's a special assessment which hurts the pocketbook more. Please set the standards high and hold us as citizens to them. Be bold in building the LRT and the infrastructure in the bike plan! Stop allowing developers to build huge McMansions at the edge of the city - it's hollowing out our core.

We need both large scale renewable utilities and distributors. I love the Cloverbar biomass project. More PV funding. Require PV-ready on newer construction.

We should absolutely be encouraging alternative electricity sources. Explore how Calgary has been able to influence Enmax developing their district heating/wind energy/natural gas plants.

Whichever way energy is to be developed, utilities should be locally owned. If not, none of this matters in the long run. Why would I not disagree with these? Make the smallest change that has the largest benefit.

With a failing transit system and surplus of cars littering the city and with transportation bias toward cars, no real progress going to happen. The trolley buses are gone and the hybrids are a bust!

Would like to see less traffic by charging a substantial levy for suburban development. It is not responsible or fair to use tax dollars of city centre residents to build schools and roads in suburbia. Let's keep services in the city so people don't want to move further out.

Yes, yes - push us to shift energy sources. The City is way too invested in continued use and dependence on fossil fuels.

Yes, Yes, Yes! There was no mention of peak natural gas here, one of my main concerns living here. If the gas goes off, people will freeze. There have been many indications that our gas reserves may not last 10 years. Yikes!

## Climate Change

A. "Produce" electricity from carbon neutral sources. Edmonton as a whole should produce all of its own energy from sustainable sources, rather than purchase it. It could sell back any surplus to the grid, putting money back in taxpayers' pockets. Additionally: reduce electricity wastage/reduce light pollution where possible. It's crazy how many empty city owned buildings have all of their lights on at 2:00 a.m. - for whose benefit? Hot grey water (from showers, washing machines, dishwashers) as a possible energy source. In industry as well.

A. As long as not exceedingly more expensive. TWWG says minimum 25% of new developments will occur in established neighbourhoods - implying 75% will occur in new areas - should raise the bar - suggest minimum 33%. Densification and infill: Plan smart - do not build high rises for infill just because the opportunity exists - better to have mid-low rises. High rises 20+ stories should be built at dense commercial nodes, downtown, old Strathcona, near malls and power centres. Glenora high rise proposal: not suitable at that location - better suited for Stony Plain Road (149-156 Street). Strathern Heights: location not near a dense commercial node (currently just a quiet neighbourhood). Even with "urban village" proposal, activity level will not be enough to proficiently support high rises (although lots of community consultation has occurred for this project so it's acceptable; whereas Glenora project did not have enough consultation that respected public wishes).

A. As long as this is a long term contract for additional generation, and not renewable energy credits. Overall comment: Thank you for explicitly combining climate change and energy.

A. Depends on source - is nuclear carbon neutral? How much power would a small weir on the river generate? May need a bypass for other river users?

## Public Forum

A. Not convinced that purchasing electricity from carbon-neutral sources would have an impact. Let's use the money to encourage residents to install solar panels. I'm excited about the idea of clean buses; the current ones seem to need tune ups; the clouds of diesel fumes are obnoxious and carcinogenic. If we're doing planning, great. However, let's set concrete, fixed goals instead of general statements.

A. Reduce consumption first, then attempt ways of bettering the system. Buying green power but using it how we are/have been does not help anything.

A. There are only so many such sources so far.

A. When economically viable.

Accept that the threat of climate change is very real and do not waste valuable time arguing with deniers. It is well established.

Again, why would I disagree with this?

Agree with everything - do it.

All are very important. We need to focus on wind and solar to reduce our GHG emissions. It would be amazing to take the money that is going into subsidizing oil and invest it in clean energy.

All changes and policies must be implemented in a phased manner to maintain affordability and maintain an economic balance.

All good. Also - help homeowners retrofit for energy efficiency.

An adaptation plan is paramount - there have been many (largely ineffective) measures to try to reduce GHGs but precious little consideration about what we will do when the climate does change. The climate IS going to change. It always has. It always will. We need to figure out and prepare for what we're going to do when it does.

As a city, let us encourage the planting of forest gardens, edible landscapes on public land/spaces.

As a major/sole shareholder of EPCOR, we should be able to influence their generation assets.

As long as they are meaningful and achievable it would be good.

B. Provided this makes sense financially.

Bike racks on all city buses - tough to take a bike to different locations if you cannot be sure!

C. and D. - Is "Edmonton" municipal-controlled activities or all activities within the city? If former, this is achievable; if latter, this requires broader focus (e.g., provincial, federal mandates).

Change needs to happen on a local level within all systems. Edmonton has the will and the resources to become a leader in reducing carbon emissions in sustainable ways.

Climate change adaptation plan is good "risk management" but the main focus needs to be on prevention. Would like to see more policies related to green transportation - these may be covered in The Way We Move...dedicated bike lanes, affordable transit.

Climate change would benefit Edmonton and Canada in general - other than more storms. Perhaps City of Edmonton should develop adaptation plans and management plans.

COE has to be ready to become a "benevolent dictatorship" as many initiatives that are citizen based may not produce desired results. Sometimes decisions have to be bestowed upon citizens.

Continue to explore and examine local electrical power production - use P.A.C.E. like funding to assist homeowners and building owners to finance energy efficient retrofits and solar installations. Promote net metering and making solar less bureaucratic. Key points: reduce urban sprawl, change MDP and increase zoning requirements. Change building code to increase energy efficiency requirements - affects all renovations and retrofits as well as new.

Create made in Edmonton standards that the rest of the world emulates. Incentivize smart grid adoption. Do not allow EPCOR to reap all the benefits. Insure consumers are rewarded for changing their behaviour. Start now with massive education programs on the inefficient way we currently use power. This includes the notion that demand cannot be controlled. How changing consumption patterns can reduce demand and save the use of coal. Move to distributed



power systems. Create a network of combined heat and power plants throughout the city. Generate power where it is consumed. Tap into co-generation potential of oil sands upgraders.

Create opportunities for neighbourhoods/community leagues to create district renewable power options (e.g., co-op wind turbines).

D. Has to be a regional plan.

D. Need contingency if price or availability of gas/natural gas becomes higher costs or less available.

D. Use this effort for more direct things Edmonton can do to reduce energy use and emissions.

Edmonton could be a real leader in this area. The federal government is dragging its heels, but oil is only going to get more expensive and scarce.

Edmonton has long had a GHG management plan which we have been unable to meet. The loss of the trolley bus system from which equivalent wind energy could have been bought to power (or our existing LRT for that matter) shows that there likely isn't the will to pursue electricity offsets. We should definitely be planning to adapt for a future where water flows will be significantly constrained.

Edmonton is likely to benefit from climate change, which should not be an excuse for improving our use of fossil fuels. Push EPCOR/Atco into better use of waste heat for district heating and the like.

Edmonton should try to attract companies who manufacture alternative energy equipment, i.e. solar panels, wind turbines and build an alternative energy industry in Alberta through land taxes/incentives.

Education is key factor in understanding ideas and once understood, market the ideas by constantly educating society.

Encourage and invest in educational programs in post-secondary to prepare students to work in this field. Open up course development proposals from a range of educational institutions.

Encourage big energy consuming business to cut down use. Example: Christmas lights, etc. Casinos - consider having more energy efficient machines.

Fine goals but impossible objectives, certainly impossible in TWWG timeframe. Perhaps a more reasonable objective - % of GHG. GHG, while worthy, is a boogie-man the City need not plan around. Better to worry about a climate change plan (including adaptation) or maybe an Environmental Plan (I know - let's call it TWWG or EcoVision).

Focus on conservation and reduction before just buying alternatives, but do aim for carbon neutrality.

Focus on reducing consumption across the board for homeowners and business to accomplish the objective of GHG control. Don't focus on paperwork and more on implementation. Of course you need a plan before you implement.

Free public transit - promotes transit use, gives priority to transit on roads (Bus Rapid Transit - no cars allowed), people will use transit as it is free, cheaper than building freeways/overpasses. Google "free transit system Europe" - there is a city increase in tourism. Passive home technology should be promoted and insurance companies need to support this (one of the biggest obstacles). Sprawl needs to be stopped - urban boundary growth limit - State of Oregon constrains city growth and limits growth in other communities outside of a given city - must be legislated at a state/provincial level in order to work otherwise sprawl will occur in neighbouring municipalities. Don't build net-zero building, build energy plus buildings that produce more energy than they need (electricity, heat).

Globally, carbon neutral is not enough. If everyone were neutral, we're still in a heck of a mess. If we're going to be leaders, we need to push toward carbon negative, not merely neutral.

Have no idea what the phrase "climate change adaptation plan" means.

Have the LRT use wind electricity.

How will economy adapt to peak oil?

I don't see any energy conservation policies. A short fall to be sure. Using less is better than using clean energy.

I love the goals and targets but am also "the converted." A lot of work needs to be done to make the plan accessible to average Edmontonians. Unfortunately, the culture of the city is a majority of suburban, several vehicle families who shop at big box stores.

## Public Forum

I wish solar panels were less expensive and more accessible to individuals and homes. The reasons are numerous and I hope clearly obvious.

If financial resources are limited, place emphasis on the first three targets rather than the fourth!

Implement or plan toward carbon neutrality. Do this by promoting use of bikes, transport through transit or carpooling. Perhaps policy makers can deal with this, they just need to be creative. The City needs to be the lead on this so citizens will follow by example.

Improve public transit - keep growing LRT. Make Edmonton more bike friendly and pedestrian friendly. Develop communities, old or new, that keep people in the neighbourhood. Diversity of structures - single family, multi family, businesses, etc. Stop sprawl! Stop closing schools in mature neighbourhoods! Closing schools is a short-sighted solution that is only making the problem worse.

In a country with no climate change policy, let's become a leader for Canada. We need to provide future generations with a sustainable city that has strong environmental policies and options for the citizens. To have a city that can be carbon neutral with no GHG contribution would be amazing!! Encourage people to reduce their carbon footprint. Show the way by the City being a leader guiding its people in the right direction. Stepping away from these unreliable and environmentally devastating fuels and creating emission standards, energy efficiency standards, and standards for new buildings is awesome. Boycott industry benefitting from the tar sands!

Include more commercial industrial involvement in energy and climate change.

Incorporating climate change as a key factor in addressing TWWG... and the way we green should be the central document that guides and overrides all others. Climate change is happening and it is our responsibility to address it; for our generation and the next.

It is wise to plan for climate change adaptation - in particular with respect to water and increasing risk of fire (in ravines, river valley, etc.) as a result of drought, dead trees.

It would be nice to have carbon neutral sources but what is the goal and why do we want to go there. So far as the municipal fleet is concerned just reduce the number of vehicles per person. Too many times I see 5 vehicles, 5 workers. Why is this? And you guessed it; some of the vehicles are idling. Just looks like waste on a number of fronts here.

I've read or skimmed most of TWWG and I'm impressed - good job. I'd like to see a stronger sense of urgency. We need strong action from the municipality and required from citizens before we have no choices. The level of adjustment and discomfort we could be facing is nobody's dream. Better to get everyone making changes now than being confronted with real disasters. Fifteen years ago people in Portugal were taking 30 second showers due to drought. That would be a much harder pill to swallow.

Maintain trees in river valley. A healthy tree system through the centre of the city cleans up CO2 emissions.

Make all companies reduce their fossil fuel usage....ALL of them!

Make sure that buses don't idle when not moving.

More bicycle lanes and safe bicycle routes. More buses that carry bicycles. More flexibility on LRT to carry bicycles - or secure bicycles locks by LRT stations, perhaps, as they have in Vancouver.

Need to commit to "what if" strategy and analyses that explores how Edmonton could remain economically resilient in the face of price shocks.

No nuclear power! No CO2 sequestration - does not solve the problem (carbon capture). Fossil fuels should be taxed higher. Travel to and through downtown should be discouraged. Provide park and ride at Southgate, South Campus, more at Century Park and Clareview, Coliseum, West Edmonton Mall. Get a bus to the airport!! Implement the bike lane system proposed in 2008/2009! Faster!

Not only is climate change a threat but all the toxins emitted by oil combustion are a threat to us all. We are being poisoned and most of don't even know it. Are we the frogs in the pot that is being brought to the boil?

One of the most significant acts we can do to reduce our GHGs is to put a price on carbon. Although a federal and provincial jurisdiction, can't we advocate or show our approval for such a policy as a city?

People will resist any changes that make one-car, one-person travel more expensive. Nevertheless, we need to continue to move in this direction, educating the public and offering incentives to increase public transit use and reduce automobile use.

Perhaps one of the most difficult aspects of the plan to address. However, it is critical. Goal: to achieve this goal would put the City in a leadership position for other cities/countries but also create a leadership model for citizens. Incredibly ambitious, but I would support 100%.

Please address the infrastructure problems with public transportation and bicycle commuters. The LRT South extension could be addressed through an elevated track, not unlike those used in Europe (see Berlin). Bicycle lanes need to be properly planned and implemented. In rural Germany, bicycle lanes are part of the curbed sidewalks - approx. 18" of sidewalk closest to the curb). Bicycles follow the flow of traffic, i.e., they are on the right side of the road and only allow bicycles to travel in one direction (you must cross the street to go in the opposite direction). Pedestrians are taught not to walk in the bicycle lane. This moves bicycles out of automobile traffic - a much safer place. This type of strategy should be used for bicycle traffic.

Policies for this area need to be more specific and practical. Broad plans for an uncertain future are a less important use of time than the previous two (Energy) areas.

Reduce GHGs but at what cost? What about affect on property taxes, on availability of recreation and other municipal services, etc.?

Reducing pollution is fine and necessary, but CO<sub>2</sub> is not pollution and we should NOT go to great lengths and expense to reduce CO<sub>2</sub>. If it gets colder or hotter or wetter or drier, we may need coping strategies, but focussing on CO<sub>2</sub> is NOT worth worrying about.

Reduction of use of electricity is more important than changing its source.

Storing carbon underground is not sustainable!

Stronger policy bylaw standards. Goal: 5 leagues to pilot transition toward carbon neutral. Feed-in-tariff - commit to renewables. Becomes nuclear free zone.

Take a look at European countries and see how efficient their trains are. Educate young people - increase awareness to older people to change their thinking toward energy savings. Additionally: Develop and implement a program to help homeowners/businesses start some small or big changes in their homes, places of work or public buildings. Increase awareness through education and information via media. Improve and promote bicyclists/commuters and such. Ideas that late Tooker Gombert believed in.

The best way to increase resilience is through reduced waste and consumption levels, i.e., reduce dependence.

The City needs to lead by example on this front.

The loss of most pay phones has created an increasing growth and need for cell phones that are often upgraded and discarded.

This would be challenging. Mayor and Council will need to be fully committed. Europe has had these plans in place for many years - we should adopt what they have. The City should consider using vegetable based oils for hydraulics and biofuels for the construction equipment. Invest in eco-friendly vehicles to show the City's commitment for TWWG.

Transit: buses should operate on an anti-idling basis. LRT: new LRT lines should be grassed where practical (in less urban areas).

TWWG should shape the other policies (Move/Grow) incorporating the environment into these will help achieve many environmental goals.

We have a responsibility to be aware of climate change equity and ensure that we do not continue to be part of the problem. We need to prioritize these goals ahead of short term economic growth and we need to invest in our future. TWWG needs to be the central plan and the other municipal plans should be supplementary to TWWG's goals.

We need a new model, as much as efficiency - change the one building per family paradigm.

## Public Forum

What does climate change neutral mean? It is impossible to separate Edmonton from the world and be neutral on our own - we are part of a larger system.

With the amount of empty roof tops in the city, are there any ideas being generated to work with landowners to establish roof top gardens, green space, etc. to manage greenhouse gases?

## Water

"Benefits and Costs: - This is an interesting statement. I think it should read "some costs now or major costs in the future if we don't act." We don't want to put this burden on our children and grandchildren!

"No water, no life." It is vital to maintain and protect all water sources above and below ground. Suggest working with Goldbar Treatment Plant to move forward with the preservation and effective ways to handle wastewater runoff. Other preservation groups include Ducks Unlimited. Working together will be beneficial in conserving/preserving the quality and quantity of water sources. There are some rivers in Alberta where oil and gas companies pump directly to extract the product. Do we need the oil industry - yes - but work with that industry.

All excellent ideas which should be implemented. Protection of wetlands helps with groundwater recharge and groundwater will become increasingly important - and if river flows are low, the groundwater may help recharge the river. The possibility of reduced flows is likely to increase with climate change - even if we look at history we know that the natural variability in flow is very large (e.g., 1790's when there was one year when the N. Saskatchewan was so low it was possible to walk across the river). The two dams upstream help regulate flows but in dry years (e.g., 2009) the reservoirs can be very low.

As far as water and development goes, there's a lot of communities being built around lakes for stormwater management. Although it could impact groundwater a lot, there's a great potential in these communities for using those lakes/ponds as a heat source/sink for heating/cooling homes (pond geothermal). The lakes would have to be deep enough to avoid freezing to the bottom but this resource is totally ignored in the city. The use of lakes as a stormwater option is great, but this could be utilized a lot more to bring down the monthly costs of individual citizens that is always a killer, especially with volatility in gas prices.

Ban bottled water in municipality of Edmonton. Implement household limits somehow.

Ban the cosmetic (unnecessary) use of pesticides on lawns, gardens, schools and other public places. Proposed policies are all so important plus how about encouraging people to conserve water use?

Believe "value" proposition of the river needs to be effectively communicated. Believe collaborative regional approach needs to be established with municipalities up and downstream from Edmonton. Policies and plans need to be in synch to keep water quality as high as possible.

Biodiversity (think native plants), choosing plants, and activities that support the edges especially of the rivers will help protect the water. Reduce water use every way we can. Reduce erosion everywhere in the city.

City shouldn't create any policy groups that mirror that of existing groups (i.e., Alberta Environment and North Saskatchewan Watershed Alliance).

Concerned about apartment developing a closed water system that recycles water. Concerned there is a monitoring (internal) for the quality. In case the tenant has a visitor, house sitter or elderly become confused and dispose of non-biodegradable, toxic items in the sink or toilet. Then all tenants would be vulnerable or those with sensitivities would be left to identify and prove where the transite problem was. Also, pets that may take a drink from the toilet.

Concerned about combined sewer overflows into the river during heavy rain. Would like to see some protective measures for this, such as upgrading infrastructure to exclude rainwater from sanitary sewers (and associated costs to treat it) and reducing the amount of runoff from hard surfaces like parking lots and driveways. I have seen other jurisdictions learn about this, such as creating parking lots that into a small constructed wetland so that runoff and reduce the amount released into sewers (Florida, UK "SUDS" program). And, citizens could be encouraged to use patio pavers instead of concrete to reduce runoff.

Concerned about use of pesticides on city property/residential property. City should ban use of pesticides - this issue crosses several green areas: biodiversity; water, waste management; food security.

Consider encouraging more use of the water/river valley. The river valley should not be seen as separate from the city. If you allow/encourage appropriate development at access points along the river (and these must be publicly accessible spaces), it will allow people to enjoy and develop an appreciation for this unique resource.

Cosmetic pesticide ban to reduce amounts in water. Idling bylaw would help as well. Reduce traffic - cadmium and other toxics end up in water from road traffic. No bottled water - particularly not at green forums in the city.

Determine the budget that the Parks Dept. uses to water city owned land. Project that over the next 25 years. Then determine what your payback is for retrofitting neighbourhoods with curb cuts, vegetated swales, rainwater gardens and other LID tools.

Discount on land drainage fee for lot level measures such as water barrels and green roofs.

Eliminate City use of pesticides and herbicides on city maintained lands. This is absurd - way overboard. Protect ecosystems around river valleys and ravines. This is such a special and unique part of life in Edmonton. We need to protect it much more carefully.

Encourage decreased usage and reusing of water.

Encourage home storage (rain barrels); Discourage water use lawns; Have program to plant native crops/grass on city parks; Publish maps of potential water supply in 50 years due to climate change; Fertilizer, snow/salt melt mitigation.

Encourage the use of rain barrels in residences. Promote xeriscaping - use more water efficient plantings and landscaping. The City can model these ideas and show them in public places. Individual homeowners could do this as well. Change attitudes about having green grass. What about having water downspouts in homes go into the law rather than into the sewer systems? I'm doing it at my home now. Next year I will divert my gutter drainage to my yard.

Ensure sewage storm drain overflow does not enter the NSR or its tributaries at all.

Get grey water recycling systems approved under the Alberta Building Code.

Greening our roofs, reducing our run off by reducing paving - should all be part of managing our water supply. Grey water recycling should be encouraged. Watering laws should be banned. Watering open spaces and parks should be banned.

How can anyone disagree with these proposals - they seem very positive and straightforward. Are these concerns more important than low-cost housing or other pressing issues - that is a tough call to make. I love the environment and use it every day. The same applies to water. I think we better stay well aware of the state of one of our most precious resources.

How will current plans (the development of West Rosedale) and other future plans impact on riparian zone management and what areas can you work with the increased protection of the river valley for future generations?

I felt the plan lacked insight or detail on how: grey water could be used to save water and heat energy (on an industrial and residential scale); marshlands, wetlands, ponds and lakes could be used for both water storage and for cleaning water (many native plants are excellent at cleaning polluted water); fertilizer and pesticide use could be controlled (on both a large scale and residential scale) to improve water quality.

I think water allocation is a municipal issue insofar as our municipality can ask the provincial government to consider future watershed management priorities in conjunction with municipalities. So while this may not impact TWWG parameters, without a watershed-wide water allocation directive that better reflects current science and industry uses, our best efforts on water in TWWG are limited. LID is conditionally supported since some projects can be considered LID but are still detrimental to the health of ecosystems. Priority water use should be a zero-impact water system.

I would appreciate it if the City would release a statement opposing the sale/use of bottled water. If Edmonton wants to be globally respected, it needs to be prepared to take stands on water security issues that are also global in perspective. Bottled water, especially in a city with such high quality water as Edmonton, is not a necessity and creates a significant amount of waste and saps water supplies in various regions world-wide.

## Public Forum

I would like to see city policy on water reduction through residents - low flow toilets in new developments; no flow urinals in commercial buildings. If probable, ozone disinfection and UV disinfection for cleaning of water, instead of chemical.

I would like to see us improve water quality so that: children and adults could swim in the river; we could eat fish caught in Edmonton and downstream from Edmonton.

Is there any thought to liaising with other communities (upstream and down) with regard to watershed protection? In the White Paper, there is mention of the Gold Bar facility returning 90% of the (treated) water to the river. However, Gold Bar's long term strategy is 0% effluent (according to director Vince Corkery). How will this affect downstream users of NSR? Policies and strategic plans such as this are an extremely beneficial starting point for watershed protection. What avenues are there for increasing education surrounding watershed preservation? There are some excellent classroom-based resources available through organizations such as Inside Education, but what about hands-on experiences for youth? Could organizations such as ACEE (Alberta Council for Environmental Education) be involved?

It is important to inform the public about smart water use, water (freshwater) conservation, and the possible uses of grey water around the homes. People need to be educated on Alberta's water usage problems - where the freshwater is being consumed and how they can help in their day to day lives.

It would be great to see consideration of the following points: liaison and communication with upstream and downstream communities and municipalities; support for the Capital Region River Valley Park - work with the River Valley Alliance - support for River Valley Rangers; planning with TransAlta re water release from Brazeau and Big Horn especially in low flow periods; maintaining a no-net-loss of wetlands policy despite new Alberta Environment policy; an education program such as River Watch with funding support; support for River Day; consideration of restricted river use by jet boats and personal watercraft (e.g., Calgary bylaws); more hand-carry boat launches to allow more float trips and pedestrian access to the river - you can't care for what you don't know and love; how will Gold Bar's "resource recovery" affect the river when no water is returned?

LID approaches should be given high priority.

LID is a very good idea. Bylaws should support the use of both grey water and black water treatment. Processing water on site (at a development, i.e. apartment) can relieve pressure on the city water management system. Green streets should be considered. A combination of storm water runoff and permeable surfaces to allow water to recharge local water tables.

LID: Great concept if proven and proper long-term maintenance costs are considered. For example, green roofs have been shown to be net exporters of nutrients such as phosphorous and nitrogen (see research by Toronto Regional Conservation Association). Also, many LID BMP's are given approval based on bio-mimicry principle; however, actual performance can be highly variable. I agree with LID but we need to exercise the same caution as traditional or manufactured BMP's before adoption. Also, there truly is no silver bullet. Risk Management Plan: Is this due to climate change? More info regarding what the models are predicting would be beneficial. As well as perceived actions as a result of a risk assessment.

Make sure Edmonton works with upstream communities on water quality issues. LID should include "surfacing" buried streams and increasing natural capacity. This will also protect groundwater and enhance flood control. "Objectives" doesn't provide a level - it's a motherhood statement - how could anyone object to "standards." I want high standards as our objectives.

Missing objectives: The NSR and tributaries are protected from pollution and erosion resulting from urban sprawl. Find ways to sequester rain - encourage rain gardens ([www.BlueThumb.org](http://www.BlueThumb.org)), outlaw drain to sewer connections, more composting toilets. Too soon for a risk management plan - too many variables in play to make accurate predictions. Also, fear-based; focus on positive action. Redesign roadways to keep salt out of soil.

Most of these objectives require regional, provincial and even national cooperation. Dealing with one small section of the province (i.e., the city) would not be very productive compared to the expense.

My first concern was water supply; after discussion with a presenter, I understand this is being addressed. However, I am concerned with the misuse of water (i.e., lawn watering, driveway cleaning, laundry, etc.). I realize these are small scale, but every drop may count at some point - education is key. I would like to see no motor powered boats on the river

within city boundaries at least. Clean water - not only in our taps but in our river. Water collection - we purchased 2 rain barrels from the city and they are fantastic - great program. I'd like to see every home have one.

Need to ensure people are not dumping into the river. Perhaps having a team that helps to prevent this. Also, more education is needed to get people to take pride in the river valley. If we are proud of our river, we will protect it fiercely.

Need to move toward using grey water for certain uses - why do we have drinking quality water in toilets and used for other uses that don't need drinking quality water? Concerned about the pressure on our drinking water due to our own consumption and exporting to other countries. Need more focus on keeping water bodies clean and safe!

North Saskatchewan River water is a valuable resource that must be protected. Allocations should be done responsibly and user should be encouraged to conserve and recycle whenever possible.

North Saskatchewan Watershed Alliance has been doing some research activities. I would like to make a suggestion about the research results. All kinds of research should be accessible by public. Research papers should be posted on the Internet or in the City web site regularly. As a result, interested persons can see the status of the research activities that are performed with public money.

One of the most significant ways to improve runoff water quality is the creation of naturalized constructed wetlands such as those currently being installed by the city in the Kennedale and Pylypow areas. I believe that the city has an opportunity through "The Way We Grow" process to create policy directing private developers in the protection of existing wetlands and in the establishment of constructed wetlands for storm water management.

Petroleum products are probably the biggest hazard, e.g. street runoff. Remember the good stream flow is only 6 months, i.e. when the snow, etc. has gone.

Preparing ahead of time for a future with reduced water access is possibly the most important. The NSR needs to be treated at the sacred force that it is.

Preserving natural wetlands (not just turning them into stormwater ponds) is important to the preservation of water flow and water cycling in our environment, and also for the preservation of biodiversity. Temporary water habitats and semi-permanent ponds are becoming increasingly endangered, largely "replaced" in new neighbourhoods with permanent facilities with DO NOT have the same ecological characteristics. There are species, such as fairy shrimp, and mosquitoes (part of the natural system even if we find them annoying) which cannot thrive in these "equivalent" habitats. In terms of the river valley, the natural resource of an undeveloped ribbon of inter-connected green space is an internationally significant resource. To destroy that resource in order to pull a few dollars' worth of gravel out of the valley should be criminal.

Provincial legislation leaves room for the government to take control of our watersheds through "patriation." Will we stand up to this?

Reducing roadways would help storm water management, i.e., fewer paved surface. Higher costs for commercial/industrial/residential water use to encourage conservation.

Require measures for lower water use in new residential and commercial buildings (showers, toilets, appliances). Foster use of rain water.

Restrict amount of salt and sand and pollutants going down the storm sewer into the N. Saskatchewan River.

Some concerns over historical land use and subsequent slow release contaminants coming from areas such as Rundle Park (landfill) and Strathcona Science Park (industrial, creosote). Containment and abatement practices from 1980's and 90's have changed. Beyond monitoring, would there eventually be an invasive clean up required at some of these sites?

Support education programs to make people more aware of water issues, particularly targeted at school age children.

Sustainable site certification is a key component toward meeting stormwater objectives. As well, sustainable sites will equally address air quality objectives.

The City needs to work with our public utility to price water for conservation. Under the current scheme, water is too cheap to make water efficiency projects feasible. I know pricing water is controversial, but at least something should be done at the institutional/commercial sector level.



## Public Forum

The City Planning should have more of a role in saying "no, we don't agree that particular development should happen by the river."

The City should not just support aquatic health but take full responsibility for the health of the river and "ensure and maintain" aquatic health. To what state will you be restoring wetlands? Will Mill Creek flow freely through the city? I think the City should prioritize the re-emergence of vital ecosystems over economic/industrial development. I think that priority should be given to ecosystem health over any form of development.

The City should take on a more active part in educating all Edmontonians in negative affects of present activities that harm water quality. For example, pesticide and fertilizer use. City should have strong stakeholder representation on issues outside of the city which affect water quality, i.e., agriculture, including livestock production, mining and industrial. Is there a way of engaging in these activities with no negatives on the river? Get rid of all combine sewers as fast as possible.

The idea of grey water needs to be more advertised. Teaching people how they can reduce their water consumption with simple things like turning the tap off while shaving and brushing teeth is the FIRST step in making changes. With 1 million people in and around Edmonton, if even half of the people began reducing their water consumption, we would see a large change. Using grey water to water plants, lawns and use in washing vehicles would be very helpful in reducing and reusing water resources.

The NSR is an amazing and very important attribute to Edmonton. Everything possible should be done to protect its integrity.

The objectives are obvious and already being achieved. We should be trying to push the levels of protection, not simply maintain status quo.

There is nothing here addressing water conservation. Surely one of the best ways of reducing pressure on the system and quality is simple to use less. We will never be in a situation where the population is less than current levels. Therefore we will need to provide for increased population without increased resources. I believe one of the most important elements in developing a water sustainability plan is to conduct a massive public education program aimed at reducing water use on a personal and industrial level. This ties in with reducing the ecological footprint, biodiversity and food security.

To an extent, these objectives are already being achieved in Edmonton. What we need is a methodology, a real plan, on how to meet them. For water quality, we need to address the first flush of stormwater, sediment loadings, development practices that limit all at one grading for a more staged "as needed" process to minimize erosion from the land. We need to address the urban heat island and its affect on the heating of stormwater which then becomes discharged to the river, etc. there's a lot more that isn't being addressed here. We live in an ecosystem whether it's urban or rural and these natural systems and processes (precipitation, evaporation, etc.) are a part of it.

To lower consumption, increase usage fees, particularly for business. Only then will individuals think twice about watering their law 3 times a day, having 20 minutes showers, etc. Use that money to support more sustainability process.

To what extent? Ingested Drug Residue (Waste) Report to drinking water. Ex. - Lipitor; Valium; Viagra?

Water and other utilities should be kept under City and taxpayer control in order to properly monitor and protect quality supply and costs. Good work monitoring the river water quality!

Water is a human right; treat it as a public trust, absolutely, not for sale. Corporations do not have the right to destroy our water, tailings ponds take 30-40 years to reclaim! We destroy ourselves if we destroy our water. The City needs to advocate for provincial Water Act policies that place water into a public trust. As a corporation/customer of water rights, put the spirit of TWWG into protecting all the watersheds of Alberta.

Water quality issue should be at the forefront of all city issues.

We must protect our groundwater - that is what is left of it. Only two natural ponds left in the city. Developers are allowed to encroach upon or destroy sloughs, marshes, etc. Many of our natural streams are now culverts. We tend to use far too much pavement in city projects, and in our homes. The water goes into the sewers instead of the ground. We need serious city campaigns to educate our citizens on the need to conserve water and how to do it. The North Saskatchewan could easily be in serious difficult in the not too distant future. How is the city planning for that eventuality?



We need to develop a system that allows us to treat any runoff that flows into our river. We need to make our wetlands safe so that we may save any animals that may suffer because of pollution.

We need to have greater incentives to reduce water consumption. Presently our water prices are in the order of \$2.50/m<sup>3</sup> or so (including supply and sewer) - these increase our own incremental water consumption rates and they work out to about 4 litres/cent which is incredibly cheap. I think that an easy incentive would be to charge only a \$/m<sup>3</sup> rate and no cents/day rate. Then increase the \$/m<sup>3</sup> rate so that it provides the same revenue as the former cents/day revenue. In this way, people who conserve will benefit and it will provide more incentive for people to conserve.

We should be treating all water returning to our river; making better use of rainwater, protecting existing wetlands/streams/ponds, etc.

We should continue to improve the combined sewer system, both through sewer separation and reducing the combined sewer overflows. For wetlands, rather than paying to have compensation outside the city limits, wetlands compensation should be provided within the city. Support LID features, particularly to reduce runoff from sites, improving the water quality from the base flows. Our creek systems should be considered part of the city's infrastructure and valued rather than treated as an end of pipe disposal. Focus on improving quality of stormwater rather than only requiring quantity control.

What about rethinking many of our existing bylaws regarding grey water, composting toilets, rainwater catchment for consumption, etc.? What about filtering or treating more of our stormwater. I heard the Mill Creek watershed is filtering off huge amounts of pollutants, mostly oil and road pollution from that waterway. Can we implement this in other areas? The City should refuse to support the bottled water trade at all. No bottled water sold in any public buildings.

What about the runoff from tailings ponds?

Work better with outlying communities to monitor the impact of water contamination in all settings. Encourage cooperation on this issue between corporations and First Nations groups.

Would like the City to approve grey water residential usage.

You missed grey water. This is an important concept in conservation and reusing water. The largest user of water is business and hospitals. Why wasn't this addressed. Individual use is so small and is almost negligible.

## Food Security

#1 priority - protect the agricultural land that we currently have. Specifically, the land in northern Edmonton. It is some of the best agricultural land in the world. Greenhouses combined with co-generation is also an option. Labelling should be stricter by eliminating loop holes by improving information about where the food is really coming from, not where it was manufactured.

A food council would be efficient in addressing food security in a seemingly prosperous city such as Edmonton. I say, establish this food policy council to address this issue.

A local food system is critical to a sustainable community and offers us numerous economic opportunity and environmental benefits. Food should trump most other "sustainability" issues, except water and air.

A mix of non-profits agricultural and food corporations should be key council members. Gardens, backyard farms have an impact as well. Small farms and hobby farms are also key. Large factory farms, GMOs, food miles are my top concerns.

Absolutely. The city needs to focus on increasing local production, preserving agricultural land adjacent to the city instead of building new subdivisions on and paving over these lands. Also, support community gardens. Empower, support local initiatives of local food distribution. Council could also look at an education program on nutrition and influencing dietary choices. For example, educating the population on energy intensive costs of various choices could ultimately reduce the impact on ecological footprint. For example, encouraging a switch to a vegetarian diet, or at least a significant reduction of meat consumption.

## Public Forum

After learning of the fact that there are grandchildren's names on the waiting list for the Strathcona Community Garden plots. Certainly any city owned land should be considered for people to grow.

After watching Food Inc., the City should have these policies in place. Reducing pesticides and other chemicals into our bodies will limit the affects on future generations. Edmonton should also consider vertical farming for the city. This provides organic foods all year round. It will save money in the long run and provide jobs. The City should also promote more of the Food Security - this is an awareness all Edmontonians should know.

Agricultural land reserve should be a consideration.

Agriculture-zoned areas such as NE, increase edible landscaping in public areas, and educate citizens on possibilities on private land; promote community gardens - more opportunities for community gardening - liaise with community leagues? Local labelling good idea. Discourage (outlaw?) developers from imposing restrictions on new areas. Include edible landscaping and/or community gardens on multiple-unit complexes. SPIN farming encouraged in suburbs.

Are there any ideas for establishing agricultural parks where areas of NE Edmonton (north of Gorman Industrial) can be protected from commercial, industrial or residential developments? Creating a park zone for the use of land for agricultural, low impact use for food security could be established. What future programs could be created to allow Edmontonians to harvest berries, plants, etc. in the river valley or the creation of areas where berry picking is low impact, educational, for all that choose to do this activity? Are there links with the community gardens networks and community services staff to create and support the expansion of this movement as a future food source for the future?

As oil/gas prices increase, this will be much more important. Best to develop strong local food network now.

Ban Monsanto and other genetically modified seed/food and go 100% organic. We mustn't put chemicals on our farmland in order to sustain the soil for future farming. For exotic foods, can we have growing greenhouses in our city?

Better late than never - how about assessing what's left of agricultural land in Greater Edmonton area and hatch a plan to save some of it - NE especially (market gardens, etc. vs. concrete and subdivisions).

Can City Council enact a bylaw to stop developers from building high rises, parking lots, etc. on arable farmland?

Chickens in back yards!!!

City could be an ambassador for the 100 mile diet.

City should be more actively involved in promoting community gardens, backyard gardening, use of vacant land for gardening. This would contribute to the betterment of the city in a variety of ways. Many older residents still garden, have much knowledge/experience. These people could mentor younger people interested in learning. Awards to ventures (local) that have supported local/sustainable food production/processing. I am greatly concerned about the loss of good agricultural land to development. We cannot keep sprawling indefinitely.

Community gardens - increase food within city and will help this issue significantly. Less reliance on large food industries such as factory farms and importing food from States or Mexico.

Definitely need a Food Policy Council. Let's get moving toward a local and sustainable food supply. Being able to keep chickens in urban areas is a good idea, and more garden space. Global trade is based on cheap oil, and oil will not be cheap for much longer.... It is also very wasteful and produces a lot of garbage for packaging, and emissions to transport it. However, we also need to make sure that local, nutritious food is available at an affordable price. It is know that lower income individuals have lower levels of nutrition and that nutritionally poor foods are often cheaper. People also need to be educated about what local food is, about nutrition, and how to shop on a budget. On another note, Aboriginal peoples and elders have a lot of knowledge about local and natural food sources. Elders should be consulted and asked to share their knowledge of living sustainably and respecting food sources.

Develop a master gardener program the same as the master composter plan - develop a community gardening program and help schools that have or are launching gardening programs. City needs to become more public in opposition to oil and chemical plants buying up land especially in NE Edmonton. Establish a network for groups that are working on permaculture, sustainability, food security, water protection, etc.

Do not develop any more farmland around Edmonton. Turn the airport land into a huge garden. Encourage home gardens.

Don't spend unnecessary excess money on this though, listen more to community for ideas than hire consultants.

Edmonton is obviously an urban centre so food supply opportunities within our boundaries are limited. The City needs to develop a strategy with surrounding communities in regard to the food supply. We need to ensure that a variety of crops and livestock are raised. Subsidies to farms and stores that supply locally grown food could help offset the costs of competing against large corporate farms while protecting our supply at the same time.

Encourage community gardens, as well as home gardens. Preserve remaining farmlands.

Encourage creation of more roof top and inner city gardens.

Encourage farmers and neighbourhood markets. Public 'carbon footprint' of foods. Reduce our exposure to energy and food cost spikes. Part of healthy lifestyle.

Encourage more communal gardens within walking/cycling range of city - even in Mayfair Park (parks are more than picnic/sports areas). Stop the expansion as per NE Edmonton - some of best local soil and conditions.

Ensure farmland stays farmland. The City (?) could step in when a farm goes up for sale to keep detrimental developers away. Some options may include selling "plots" back to the local growers to help keep food local or let local food growers run the land, sell produce, not for commercial gain but solely to provide the city's grocers/restaurants, shelters (what have you) with local food options.

Everything addressed in the White Paper needs to be put into practice. We can and should grow, harvest, produce and sell our own food. Eliminate the need to import food, which requires fossil fuels. Food systems will create jobs and security.

Explore how to encourage Edmontonians to grow their own food in backyard gardens, patio planter gardens. Mandate the planting of edible, native species.

Fixed, concrete goals for locally grown foods. City to encourage community gardens (in Kelowna, BC the city provides land and water to community groups for this end) and prevent excessive taxes from pushing our farmers to sell to developers. The food security problem is closely linked to our problem with excessive sprawl and suburban housing. Let's use our zoning laws to advantage to control the spread of suburbia and let's keep our housing within the Anthony Henday ring road. This way, we will have a fixed boundary for sprawl, and we can protect our farms and keep our farmers on city land producing local food. Equals less pollution, less cost in extending services to suburbs, more active citizens in compact, convenient, non-car-dependent neighbourhoods

Food policy on what though? Are we speaking about the type of food being grown, different agricultural methods (organic or morganic)? What type of people will be sitting on this council?

Food should be one of the major aspects of any sustainability plan. It goes so far beyond simply food related issues to combat climate change (greenhouse gas emissions, to water concerns (responsible farming decreased riparian loss) (crop exports amounts to exporting water), etc. The point is that food is one of those topics that can be used to bridge the gaps in between these areas, both at a policy level and more importantly, in the public education part.

For this strategy to be viable, Edmonton needs to retain some lands as agricultural and not rezone everything for commercial/residential development. People will also need to be educated on the benefits of locally grown produce as invariably it will be more expensive than mass produced food. Also could require more land in new developments to be set aside for community gardens or similar uses.

Force development of agriculturally unproductive land instead of high quality agricultural land. Zoning, etc.

Gardening crews that use (unused) private yards for space and share yields with owners. Using public space and school yards to produce food. Education of our kids about food, where it comes from and how to produce and store it.

Given massive urban sprawl, Edmonton needs to mitigate loss of "food land" by bringing the farm to the city. Not just farmers' markets but "farmers'" gardens throughout the city. Public places where people can grow their own. The farmers can teach us how to do it. What we are currently doing with land use is not sustainable. It needs to change. City also needs to consider bylaws which enable micro gardens and markets on a ward by ward, community by community basis. Street level markets. Communities of "food leagues."

## Public Forum

Go city chickens! I daresay chickens and goats! Please establish grants for community gardens...oh, and workshops on how to grow and raise and nurture!

Happy to see City council has put food security in Edmonton on their agenda. As a weekly shopper at local farmers' markets, I see that there is ample expertise, resources, etc. to make food security in Edmonton a priority. I'd like to see local food purchased not just by these 'locavores' in Edmonton but for it to become a part of mainstream society. Providing support to local food producers, prevent Edmonton's amazing soils from being paved over and showing the public that local food is affordable and available is key.

Have a special label (colour and shape) for the Edmonton area to encourage purchasing local.

How can we turn Edmonton from a net importer to net exporter of agricultural products to respond to global hunger being exacerbated by global warming? Is food security oriented to the needs of the least well off first?

How has the city protected good arable land? By covering it with houses and asphalt! Remember the city is reliant on other areas for at least the six winter months when no growth is possible.

I disagree that an adjunct organization can either (1) gather the effective support of City of Edmonton (internal) units and external parties, nor could it effectively (s) implement a diverse and cohesive food security/urban agriculture plan. I recommend: (a) Edmonton should have a comprehensive plan that addresses both food security and urban agriculture, (b) The City open an advocate to implement that plan.

I have a dream to build several food forests in Edmonton to promote food security and educate citizens on sustainable, perennial, edible landscape design so everyone can play their part in food security. There is a huge need to build awareness of these issues and to promote urban agriculture. If there are any future discussions, public forums, grant opportunities or working partnerships available with the city, please contact me (record #133). This is a fantastic way to build community resilience. I believe the city also needs to take initiative looking at opportunities to extend the growing season through greenhouse community gardens and green covered roofs as we live in a cold climate region. Green roofs insulate buildings, increase biodiversity and provide esthetic spaces as well as act as a carbon sink. The soils are amazing here and we need to take advantage of that.

I have seen more local farmers' markets - that is great. Could we promote the 100 mile diet or 1000 mile diet to encourage consumers to use food and materials that are locally made and grown in our own area or province and country?

I haven't read the report but I do hope there is a policy to stop destroying market garden land that is used to grow local vegetables.

I hope that organic farming will also be considered as an important issue, including health-related issues.

I support any initiative that would allow more locally grown and organic food to be made available to all Edmontonians with different incomes! The cost of locally grown and organic food needs to be more in line with people of lower incomes.

I was not aware of this issue prior to getting here = more education will be needed once policy is in place.

I would like to see the city (and/or province) provide an environment for mini-markets throughout the city - for producers that don't have a market. There's lots of 'micro' producers around and in the city that don't have access to a customer base. They have small acreages - and abundance of food and no distribution. Distribution is a key issues for farmer/producers in the Edmonton market - with no market they are forced to stop/sell...we are losing a huge 'knowledge' 'experience' bank - lots of farmer/producers in their 60's - and no one to pick up the... I'd like to see a rural/urban mix in the city. I love the idea of a few chickens in the backyard, a few sheep or goats, rabbits, etc. Citrus Heights (Sacramento, CA) has a lovely mix - probably not planned but there are residential bungalows on a block with one lot empty save the sheep - just one example. Perhaps the 'big box' stores will become growing spaces in our future. Hopefully you can act sooner than later!!

I would love it if I could have my own chickens or somewhere in the city to look after them. Community gardens in the vacant lands, brownfields, clean them for their use.

I'd like to see Council do more to support and promote urban agriculture of all types; SPIN farming (on city land?), urban chicken and bee keeping, permaculture food forests on parks, etc. Can the City buy local food for city functions? Can the gardens at Fort Edmonton be utilized more with sustainability, education and increased food production in mind? Can we have an urban farm? GEA (Greater Edmonton Alliance) has done some wonderful work on food security that has inspired and engaged many people. Please listen to them! Consider what kinds of junk food is available at city-owned buildings and stop this support of mostly U.S.-based junk. We could implement a trans-fat free, GMO-free city. If GEA is unavailable to continue their work, please continue these initiatives.

Importance of agriculture as a business should be nurtured.

Important to protect the land and the knowledge of how to grow our own food/prepare our own whole food. Not only is the development of such a council important oversight but perhaps as important as having/encouraging the development of resources and organizations within communities that will offer this knowledge freely and to continue the tradition of how to be sustainable and self-sufficient for one's cooking/nutrient/ eating ways.

In the interests of food security, the City should NOT develop the northeast segment (I realize a technology park is on the books, but at least the remaining SE area should be left to agriculture - prime agricultural land with A1 soil and suitable micro climate!). Also, City has lots of spare land including barren areas of nothing but Kentucky bluegrass that can be used for community gardens.

Increase advertising and focus on promotion of eating locally. Promote restaurants and grocers who provide and use locally grown foods.

Increase community gardens (e.g. one located in Oliver) to encourage people downtown to participate in growing food.

Increase local production, including within city limits. Attempt to increase home production, including allotment schemes for condo and apartment dwellers. This has healthy advantages as it improves access to fresh fruit and vegetables for those on low incomes.

Investigate current/future by-laws for agriculture/livestock allowance to maintain food security.

It is very important to protect existing agricultural land within the city and in the region. If necessary, there should be a ban on the sale of agricultural land for non-agricultural purposes, with possibly some compensation for existing owners for any loss of planned "development rights." Many agricultural producers in this region want to keep their land in agriculture. Edmonton should work with other councils in the region to protect all good quality, agricultural land in the region.

It seems rather obvious that the more effort we as a local culture put into embracing "independence" of food resource; (buy local, grow local - permaculture), we develop a greater cultural stability, an enhanced sense of food security. Our exposure to the variabilities and vagaries of global commodity markets, transportation distribution understandably leaves us remarkably vulnerable. Unavoidable yes, but much can be done to lessen our exposure.

Just stop rezoning/paving the best farm land in the city. Use derelict schools as community gardens to keep them as community centres. Off topic: closing neighbourhood schools hollows out a neighbourhood like sprawl hollows out a city centre.

Keep existing farmland within city limits! Local farms provide good food and economic development. Encourage more community gardens!

Less lawns, more organic gardens. Gardens can solve ??? Problems. Actually they can look into it.

Less meat. More support for veggie diets. More community gardens. More support for fruit trees in school yards. Reserve more land in NE for agri land. CSA, SPIN. Cosmetic pesticide ban.

Local food free of pesticides/non-GMO/more organically raised produce and meat. Encourage local produce to be sold - more venues for sale = cost not has prohibitive.

Local urban gardens could be encouraged in coordination with green roofs where possible.

Look at possibly developing an agri-tourism plan initiative to encourage Edmontonians to buy more local products.

## Public Forum

Make it easier to establish community gardens - instead of weedy grassed parks we can develop gardens to grow our own food.

Make sure land is preserved.

More attention needs to be paid to establishing relationships between large purchasers and area farmers. Storage facilities and local (certified) processing facilities are critical to this equation. My institution would like to purchase more local food, but because we spend over \$4.2 million per year on our food budget, we have designed our food procurement around a system that prioritizes low prices, efficiency and constant product availability. The City could help small farmers meet us in the middle by assisting with efficiency and encouraging small farmers to work together to increase the number of options available to us on a large scale. Also, the City should think about a 'sustainable' food strategy, instead of just a 'local' food strategy, which is still limited in its environmental benefits.

More than just policy, we need action. We could take as our examples cities in Europe that grow produce in public spaces - enough to sustain the city. Urban farming is a municipal and an individual responsibility.

Need to establish "massive greenhouse" projects near our coal source power stations to utilize the "heat energy" lost before it can be transmitted to the larger cities who consume the most food. Land is less expensive near Wabamun/Peace Hills/Genesee plants and shipping food within the province much less costly than over long distances. Also, EPCOR/Capital Power own some/all of these resources so should decrease overall production costs and therefore benefit all - consumers, suppliers and distributors. We will need 'secure' food sources as well as energy/potash from Saskatchewan supplies sooner than we think. Should develop this far sooner than "expo" if it costs too much or other avenues which ultimately benefit for fewer citizens. Food, shelter, clothing essentials. "Monsanto" and others attempting to monopolize and control food seeds and production - we must be very vigilant in staying viable as a city/province and country.

No more sprawl! Educate, use existing unused land to grow food.

One of the keys to establishing and fostering a sustainable local food system and agriculture is to consider the food system in development decisions in a much more concrete and comprehensive way. A Policy Council will not and cannot exercise the proper influence to do this (imagine development decisions vs. a "policy council"). This needs to be elevated as one of the key considerations in urban sprawl and valued much more highly than it is. So I would recommend, in addition to the policy council, actively adopting criteria of food security in urban sprawl and "big box" development considerations.

Our food growing capacity in and around Edmonton is more than sufficient to feed our population and more food storage for emergency in homes and central facilities is a different matter and should be encouraged.

Our food should come from sources whenever possible - pushing for self-sufficiency would not only reduce our carbon footprint but could ensure better quality and promote city and community development. Self-sufficiency would require producing a diversity of food through sustainable methods such as permaculture. The strategy should include a vision for increasing alternative agriculture through community gardens, vertical farms and integrated buildings with systems for growing food. Education could be achieved through participation in projects such as these, and would foster a sense of community and intrapersonal wellbeing. Monoculture and monopolies on farm land should be discouraged and certainly not subsidized. Regular people need help to reconnect with the sources of implications of their food choices.

Permaculture. Use strategic landscape design to minimize maintenance costs, promote biodiversity and have green spaces contribute to food security. Permaculture is the most efficient use of land and is ecologically sustainable. Also, support the Good Food Box and similar services that provide distribution and marketing synergy for local food producers.

Please stop selling farmland (inside city limits) to developers!

Please stop the developers encroaching on our valuable farmland south of the city. We need our farmland to plant our vegetables and be sustainable a lot more than we are now.

Preserve great agricultural land around city. Support local food production but don't forget transportation costs.

Preserving agricultural lands, especially in the NE, instead of turning it into more McMansions would be a great help. Encouraging urban agriculture (i.e. raising chickens, rabbits, bees, backyard gardens, roof top gardens, etc.) would also assist in increasing our food security.

Propose policy to develop roof gardens as part of residential high-rise development. This increases food production and biodiversity. Also reduces our city's energy consumption.

Provide help to make local grown food affordable for producer/consumer. Also, maybe if policies were in place to make producers more accessible to financial help...not sure.

Reduce meat production and consumption. Reduce alcohol production and consumption. Use plants wise. Feed people not cows. Use grain to feed people, not to poison them.

Redundant food systems over efficient food systems will become more important as shocks to the supply chain become more frequent (climate change, peak oil, etc.). Encouraging smaller, more decentralized food growing operations should be key. Strategy needs to focus on education, gardening, permaculture, food sheds, etc.

Reestablish a regional food system that supports local food producers and provides opportunities rather than forcing them to compete on a global scale. It makes no sense to ship everything out to just turn around and import everything we eat.

Reserve land for local food production. Determine how much land and resources are required to feed us and do what you can to save it. Encourage front yard gardens. Allow a reasonable amount of food animals within the city. Allow neighbourhood bee keeping.

Set up standards and expectations that people can follow and understand.

Simply buying local will not work. Price increases while choice decreases. An effective partnership must be established with a community that can produce different food than Edmonton.

Sprawl has got to stop. We should be building up not out so that we don't encroach on the rich agriculture resources around the city. These are beginning to be part of the city unfortunately. Local home grown food is so much better for health than stuff imported that has to be picked unripe so it's ripe when it gets to stores. This policy should be put to City Council. Instead of importing the vast amount of food we do, we should focus on using local food sources for their local economy.

Stop turning valuable farm land into suburbs that exacerbate other existing problems.

Stop urban sprawl and preserve Edmonton's farmland for the future. Cut down on transportation cost and invest in local foods, a local economy. Make farmers' markets more frequent and accessible/affordable. In alongside biodiversity - encouraging green space to have community gardens and more sustainable the ways in which to promote community gardens and farmers' markets by giving incentives/tax breaks to those who take such initiatives. Taking a greater suggestion from the Greater Edmonton Alliance in regard to food security. The Way We Green document should be the central and over-riding document with all plans - including The Way We Grow, etc.

Support small initiatives (create legislation that allows this) regarding backyard chicken coops.

The "stables" agriculture land should be maintained for food. The selling of this land for development is short-sighted.

The City needs to encourage a local food economy by providing incentives/tax breaks for local farmers. Needs to encourage urban community gardens, by providing incentives to developers who have undeveloped land - similar to the City of Vancouver. Promotion of local farmers' markets so that they are more frequent, accessible and affordable. The City should follow suggestions from the Greater Edmonton Alliance - as far as land use and how to protect and preserve local farm land. The Way We Green should be the central planning document for the city and the other plans should support its goals and objectives. We need to promote and prioritize a local food economy, over short-term economic growth.

The City should be doing more to permit neighbourhood gardens and food production on residential lots. Establishing a "Council" is a cop out.

The Food Policy Council will include community members, I hope. I appreciate that food security and urban agriculture have been included in the planning for new areas in the city.



## Public Forum

There are a lot of great ideas already discussed. I think Edmontonians could be more accountable on using space more effectively. There seems to be huge houses on lots and big trucks parked versus using this space for growing. Renting out space in garden/yard. Addressing this issue in the school system and trying to get the younger generations interested in more self sustainability such as gardening, farming, other ideas - using space available re: boulevards, garden space (private) to grow more. I know it's difficult but Edmontonians could be doing more.

There should be some move toward being able to provide locally, however, there must be consideration for the energy that may be required to produce certain foods in this local area. I don't know that there's an advantage to producing food here if the carbon footprint is larger than importing.

There should be, as part of this, information guides to make it easier for people to grow their own food in ways that make it easy and affordable. Demonstration areas throughout city.

This is not a responsibility of the municipal level of government; however, I marked "unsure" to recognize that City of Edmonton has to deal with policy issue of valuable agricultural land within existing city boundaries.

Time is running out on arable land in the southwest 170th east to 127th - south of Ellerslie - to 41st Avenue is consuming a lot of arable land. What role do developers play in the way communities grow? If not wholly healthy role, please take necessary steps to curb their power/influence. Please push the provincial and federal governments to incentivize citizens to be more greener, less consumptive persons. Contact the Ministry of Education, the school boards, the school trustees to make ecology, earth stewardship, a part of the elementary school courses. Reach parents to teach kids re love of nature and land. Engage citizens through inviting community leagues on a regular basis to visit/talk to those making decision re the way we live (more frugally/more mindfully). Mayor and Council. Now, engaging citizens is hit and miss.

Urban farms are a great idea as they preserve space and likely diminish the need for use of pesticides. Carts to transport goods?

Urban gardening, providing local food and jobs to citizens, is an important part of the future and the present. Providing areas for communities to have gardens, roof top gardens in downtown areas, thus providing local, organically grown produce for communities. Using rooftop gardens with recycled water, organic food gives the opportunity to grow food in bigger spaces inside the city. Allowing people to have chickens in the city, providing healthy eggs and meat. Grass roofs and trees, creating oxygen and green spaces above the sidewalks = awesome.

Utilize the roof tops for local food growth.

Very promising to see the City be supportive of urban agriculture, and the agricultural potential of surrounding lands. Thank you! Seeing that change happens mostly from a grass roots approach, it would be really nice to see systems put in place to support initiatives on a community level. Meaning, if a group of people have an idea that would promote food security in Edmonton, they would be able to work through a process that would help them define the goals and action plans. I find people always have great ideas but do not know how to go about bringing them into reality. As well, the City could establish a procedure for a program(s) that could be adopted by a community. Having started a community garden, I am aware of the time it takes (which is a lot!). Systems need to be manageable for citizens who also have full time jobs. Thanks again!

We must inform the public more about the cost of providing food for our city. We should be encouraged to grow our own and share excess. Brad did an excellent job of explaining ideas.

We need to be more responsible to not waste food and buy food locally to sustain the local markets here. Make the market more affordable for city residence to want to buy locally grown food and be proud to support the local growers and farmers.

We need to do something. There's very little rural land available in Edmonton city limits compared to even 10 years ago. The outskirts on the sides of the city, we see those lands constantly being developed. Edmonton Council and Edmonton citizens don't appreciate the work of our farmers and how important the land is for that to happen. There is a disconnect between the dinner plate and where our food comes from, whether it's grown at Roy's Raspberries or in Ecuador. Education on food is CRITICAL. Bananas cost 69 cents per pound at Safeway. What about the cost of fuel to get the bananas over from their tropical growing regions? It's a huge footprint. Do Edmontonians even realize?



We need to ensure that the surrounding land that is used in food production stays as land for food production and is not turned into housing, etc. Start looking at allowing chickens (goats?) so more food production can be done within city limits. Encourage/support/start a year round venue for local foods to be sold. Calgary has a 4-day a week (all in one place, not a different place each day) market. It needs to be easier to grow produce and then sell it. Right now the only year round venue is only open one day a week.

We need to prevent agricultural land development. We are destroying plentiful agricultural land in order to develop new subdivisions around the entire city.

We need to promote buying local as a better investment than it is now. One of the biggest issues is cost as food that is shipped from all over the world is somehow cheaper than the food grown within our province.

We need to promote local foods, no more huge corporations controlling what we eat and what we get. We need to stop building housing all over our local farms; it is preventing us from eating healthy organic natural food that we know where it comes from. I do not like going into grocery stores not knowing where the food I am buying is from.

We need to protect the farmlands surrounding our city, create more community gardens, encourage more rooftop gardens and skyscraper greenhouses, as well as enable the use of brownfields for gardens until they are developed.

We saw a good example of this with Russia shutting down its wheat exports because of climate change induced forest fires. We need to put a stop to building sprawling communities atop good agricultural land.

We should set aside more public areas/park reserves for urban gardens. We should try to keep the agriculturally zoned areas in the outskirts of Edmonton, instead of rezoning them for residential or commercial. We should allow residents to have food gardens in their front yard, or be allowed to raise chickens in the back yard.

We should tax the foods that are most affecting our health care.

What do you think? This "slide" comes far too fast after the text on the screen! i.e. more time need to digest the text material. Let's preserve the NE farmland - forget about development of these lands. Continue to encourage people to grow their own food. Not just a supply of fresh produce but to educate our youngsters about growing plants - what an education opportunity!

What the Greater Edmonton Alliance is working on is wonderful. We need to preserve land for local farms and ensure land is fertile and protected from chemical pollutants. Also the ideas of the River City Chicken collective are promising.

Work together with surrounding communities. Please foster chicken keeping and bee keeping. Ban pesticides for residential gardens and city parkland. City should own small flocks of sheep or goats to graze on parkland, around highways, etc. to decrease need for mowing. I supported GEA in the pursuit of local food security and will continue to support this issue. Please save our valuable agricultural soil from development. Please make it easy for young people to start farming. Please foster community garden infrastructure (fences, irrigation). Reward homeowners for growing food and sharing - Operation Fruit Rescue.

Yes! This is not just a good idea it's a must. Good on Edmonton for being progressive enough to go down this path. Let's look at a program for roof top gardens/greenhouses. Teaching children at schools about food security. Tons of ideas out there...let's get going on them - the quicker the better. Cheers!

Yes, we need to look very seriously at using technology and imagination to ensure a consistent, reliable source of food. Using heat from burning waste, for example, to grow food during winter months is one possibility (as the ethylene plant at Joffre did). Growing food underground to have year round supply is another possibility (with other development above). Reconsidering parks as meaning "grass" and trees is something we need to do. "Parks" could be gardens producing food with walkways and benches like the flower gardens have. Using backyards, front yards, and boulevards requires changes in bylaws and development agreements. An exchange for using yards could be set up like ??? does for picking fruit. People with space register to be matched up with people who want to grow food. The food is split between the owner and the grower. There is a UofA professor who was involved in a project in China "Seeds of Change" that demonstrated growing foods that suite the locale, that enhance the environment (not deplete it) will bring a sustainable supply of food and also preserve the environment where the food is grown.

## Public Forum

Yes, Yes, Yes - more farmers' markets needed. Stop Safeway from buying up key properties and blocking the entrance of competing food markets - local or otherwise. More community gardens throughout the city. Subsidize local food producers rather than feedlot producers and ranchers.

Yes. Food security needs to be of the utmost importance. Permaculture principles should become a standard for city vegetation projects (including food productive vegetation along Century Park LRT walking paths like Saskatoon bushes, apple trees). Food producing vegetation should be a standard for city vegetation projects.

You totally missed the greater part of this issue. It is too fear based. Focus on the benefits to community development and family health. Stop is god forsaken sprawl! No development to outer rings until inner rings reach density targets.

## Air Quality

A bylaw for idling vehicles will have an impact on air quality if enforced. How much does our fleet of city vehicles contribute to poor air quality and is it feasible to go "hybrid" with our fleet?

a. I like this notion; however, information such as long-term consequence to Edmontonians of various options would/may be beneficial.

a. Should be easy to do with current technology and smart plan apps. This helps to democratize monitoring. Monitoring of an appropriate range of indicators at the correct placement and number of sites is also important - enough so to make these two things part of the objective of "increase" monitoring. b. Good! You mean we aren't doing this??? Why the heck not?!

Adopt WHO guidelines - undoubtedly a good idea.

Air quality guidelines before we have a seniors' problem are a great proactive approach versus reactive on most environmental issues of today.

Air quality is a regional issue. Edmontonians who work in petroleum plants in Fort Saskatchewan have an impact on that community's air quality. I'd like to see the development of a regional strategy.

Air quality monitoring should also be aware of areas outside the city (i.e., coal plants west of the city). Particulates can have long-term affects although not emitted within Edmonton.

Air quality should be measured at 5' level in problem areas. Quality of air could be made better, particularly downtown by limiting vehicles into areas through fees on entry or higher parking charges to dissuade people from driving and parking downtown.

An easy way to improve air quality is to decrease the number of cars on the roads. Need more public transportation - expand LRT; run buses in hard to get to places, increase access to areas within Edmonton.

As we move forward, we need to continue the push for clear air, as industries increase with no policy in place we could see a drop in the quality of air.

Bring back trolley buses to CBD. Quit improving roads. If roads are needed for commercial traffic, ban private cars from "commercial" lanes as you do for buses and taxis.

Consider high risk group of individuals, e.g., children and the elderly. Need to know more of impact of industrial areas to city area in order to find effective ways of adopting higher air quality standards.

Considering air quality in Edmonton is already pretty good, I would not support large expenditures of tax dollars on substantially increased monitoring and publication of information; however, I realize the need to continue with modest and reasonable improvements.

Definitely agree - we need to reduce our emissions not only from cars but from buildings too. Encourage more carpooling as public transit. Make downtown an "idle-free" zone. Encourage buses to turn off engine when stopped. Places like Japan already do this.

Do we not meet air quality guidelines of the WHO? Better/more accessible and convenient public transit would help promote taking public transit.

Easy to do? What about the air quality coming from the refineries in Sherwood Park and area?

Edmontonians often have fire pits in their backyards. The negative health effects which could be brought on by the particulate matter of burning wood could enhance poor air quality. Frequent monitoring of Edmonton's air would help predict when wood burning would be more degradative. During these times, wood burning could be limited by law or temporarily suspended.

Expand public transit. Investigate renewable energy - e.g., solar, wind power. Provide incentives for clean automobiles (e.g. hybrid or electric cars).

Given the questions listed on the placard and judging from the comments made by the expert, it seems we need to invest in discovering the major contributors to our air pollution so we have a better case for controlling them. Offhand, I would like to see us move toward much less car dependence. There are still too many single-person car trips. However, cars won't stop being the preferred option until transit, bicycles and walking infrastructure improves. If you build it, we will come!

Harmonize standards definitions for air and water quality across multiple jurisdictions so we're talking about the same thing. Note wind and weather are very local so a problem in one area may blow into another area and it can be difficult to predict where bad air will go to.

Help individuals determine a benchmark and then ideas/tools to lower their impact.

Helping regular people understand their input to the problem could help reduce air pollution. Industrial emissions must be restricted by laws on behalf of the people of Edmonton. We have a right to clean air more than companies have the right to pollute it!

How much control do Edmontonians have over air quality and how much of it is up to Mother Nature? This needs to be addressed/acknowledged before setting any concrete goals, I think.

How will you develop appropriate standards/reference points so that the public can correctly interpret air quality information? How will you reduce air pollution if it exceeds standards? New (simple) technology to measure close-to-the-ground air quality is welcome.

I agree with what you are doing for the air we breathe.

I do think these are important, but don't spend more money on these if air quality is not currently an issue.

I don't really have any idea about the severity of air quality in Edmonton. I do think, however, that the City should give more information other than saying that the air quality is "good" or "bad." Also, there needs to be communication between the Province, feds and the city for implementing a pliable air quality guideline.

I have no ongoing concerns about Edmonton air quality, but also don't know how to access this information. I think having a monitoring system and info sharing with public might make Edmontonians feel more accountable on how they affect air quality re driving!

I like the idea of making information available to residents. Increase street cleaning, start earlier to eliminate dust/grit circulating after winter season. Adopt a no-idling bylaw.

I like the news/weather channel that shows our air quality index. Promote awareness ideas for people to have cleaner air, i.e. no idling program/carpooling, taking the transit/walking/biking, etc.

I like the objective very much. I find these policies are insignificant in terms of actually addressing the objective. In fact, the solutions to airborne pollutants are still the same: reduce air pollutant production (industrial and transportation), increase air purification (complicated green infrastructure like trees).

I live along University Avenue and 114 Street. The air stinks during the day. Air quality must be measured where people are living their lives. Consider page 22, #3 and #4, Substances from the Earth's Crust: Nature is not subject... If all I can smell is auto exhaust, nature has been seriously degraded, which in turn degrades my environment and health. Understandably, that road is a major corridor and not easily improved, but land use frameworks might be implemented.

## Public Forum

I suspect a lot of pollution due to diesel/oil transportation. Greater move toward electric cars, LRT, bikes and less urban sprawl would help.

Implement exhaust standards for cars and monitor on a regular basis (mandatory for owner/licence). City must get data on air quality impact from industry corridor east of Edmonton and Fort Saskatchewan. City must own air quality monitoring and not rely on provincial government or industrial monitoring. Encourage turning off motor at CN rail crossings. Ban idling in front of schools and stores.

Improve air quality and traffic policies - encourage carpooling through initiatives. Bylaws requiring bike racks in commercial areas. Bylaws about vehicle emissions testing.

Improve public transportation - make it cheap and easy. Encourage carpool system. Encourage people to use diesel engines (diesel cars).

Improved standard must be phased over reasonable time frame to allow adjustment without undue hardship. Also allowing polluters including households to improve their facilities.

In a city like Edmonton, it is difficult to reduce air pollution caused by vehicle traffic in large part due to our climate. Not many want to walk or stand outside waiting for a bus. Until better transit is in place, I find it hard to reduce vehicle pollution.

Increase number of monitoring stations, especially sensitive areas like downtown. An actual use for Churchill Square, maybe? ETS convert to hybrid or electrical buses.

Increasing monitoring only serves to put a microscope to the situation. There are many circumstances where the city has no control over air quality: e.g., forest fire smoke, weather inversions, winds, etc. so I see no benefit to increase monitoring. My assessment is it is better to examine what the city does to cause air quality to degrade. Some examples: building roads for maximum traffic flow, but when a vehicle comes off this road, the first thing it finds is a red light. Rush hours produce huge amounts of pollution! Other roads like 109 Street are huge traffic jams at rush hour. This has been ongoing for years. With all the road cameras and control systems available, why is this? Other situations, where a road exists and a new development is approved, access to the development is done by adding a red light. There doesn't appear to be any concern for impact to the traffic flow so congestion results and air quality suffers. Other situation: Roads built and street lights installed. Trees are planted. 20 years later the trees undergrow the lights so the road surface is not properly lit. So we waste the energy used for street lighting and the road is not safe. These are just a few examples of what I dub city department stove pipes. Each department only looks out for itself and does not communicate with departments being affected by what it does or doesn't do. All "The Ways We Want to Be" will not happen unless every person in each department exhibits a desire to work together for the betterment of the whole.

It will be difficult to balance this with goals from industry. However, Edmonton's amazing air quality is something that should be maintained!

It would be nice if our glorious provincial government could have vehicle inspections that looked at exhaust.

Limit idling vehicles. More education about carpooling.

Make public transit work better (i.e., free, more frequent) and make driving more difficult (less roads, freeways, parking) to promote public transit use. Carbon-neutral buildings. Co-generation and heating/cooling districts to reduce pollution.

Making "building codes" require that air intake vents are away from traffic so idling cars do not pollute inside air where the concentration can build up while a resident is away or sleeping, or a pet is exposed (birds have small lungs and are sensitive). It would like the city to ban the selling of fabric softeners and air fresheners as these add a great deal to pollutants e they from home use, gyms, beauty salons, restaurants, hotels, etc. We find that fabric softeners are now often included in most laundry soap. This personal choice is affecting all residents, as they walk by or the air blows into their yard. This affects the young small developing lungs, those with breathing problems and the elderly who have had a lifetime of occupational exposure to the chemical world we live in. This fabric softener and air freshener is an unnecessary pollutant that adds to the toxic soup that we all have to breathe in.

Monitoring is important - also so is meaningful numbers. The forest fires over the summer gave us exceptionally high values but we didn't really know what they meant. We would still spend hours outdoors attending the festivals. We also

need to be able to link the readings and monitoring to our specific activities so that we can be seen to have some way of influencing what the numbers mean.

Monitoring stations should include static and roving units, street level in industrial and residential/downtown areas. We should have weather stations reporting air quality in five areas in Edmonton and three in the region.

More education on what the air quality is in Edmonton throughout the city and the year. How do I know if it's good or bad if the information is not readily available?

More information about street level air quality. Idling bylaw already.

More information on links between nonpoint emissions, especially transportation, and air quality.

Not sure how you would adopt higher air quality standards. You would have to shut down refinery row. It would be good to have a hot line to phone or air quality testing kits.

Personally, I am quite content with Edmonton air quality.

Plant more trees, conserve our Edmonton parks.

Policies should target more than monitoring, should actively seek to address air quality problems.

Problems with the LRT being above ground: cars are waiting and idling longer, waiting for the LRT to cross intersections - especially in winter, these intersections will become very dangerous due to idling vehicles which double air pollution as well.

Promote green roofs and reward those that do! Get the LRT expanded (faster) so we can reduce the amount of traffic. BC has a law that in temperatures above 10oC, there is no idling. Why do we not have that? The LRT that runs from the UofA south campus to Heritage is above ground. This means that traffic is stopped at lights longer. Who approved this? Make sure the new LRT is either underground or above traffic (sky train).

Real time basis is key. Will allow for adaptations as needed. Air quality seems poor to me. Surprised it was (2009) 96%. Is air quality measured at ground level? Or higher? Downtown or in suburbs? Perhaps noting which station reported what would also help air quality as needed.

Real time data is useful for people with health problems when air quality is poor. WHO standards are, in some cases, more stringent than the Alberta air quality guidelines, so should be adopted - as they are health based.

Reduce/discourage the use of single occupant vehicles by making cycling, walking, transit, and carpooling the "easy" option. Reduce congestion by eliminating parking spots for private cars and reduce transit times and build infrastructure for cycling.

Remember the days of vehicle testing - safety, emissions, etc. Although the numbers are not lower due to our affluent living in Edmonton and Alberta, there are still a lot of "beaters" on the road. Even my newer car may not be tuned to ensure greater efficiency for myself, never mind cleaner air for all.

Shut down CP rail operation in south east Strathcona. Idle these locomotives 24/7/31/365 days - why? (CP +/- Esso/Shell, PetroCan).

Since I first came here in the late 70's, I've heard a lot about Alberta/Edmonton's big blue sky. However, what I see more often than not from my desk 20+ floors above Jasper Avenue is a rust coloured sky. We need to do something about that.

Since I live in Holyrood I am especially concerned with pollution from plants around Fort Saskatchewan. We (City of Edmonton) need to establish our air monitoring and not rely on Province. Require a cap on levels and hold all companies collectively responsible. Make them all shut down if they exceed the cap and not restart until problem is solved. Make plants around Fort Saskatchewan to be future ready for new technologies and require upgrades within 2-5 years of introduction of cleaner and more efficient technologies.

So much of this comes back to education. The best way to improve air quality is to reduce vehicle travel and develop an efficient high quality public transport system. The Way We Green plan should be the primary plan that informs/provides guidelines to other plans such as Transportation and The Way We Grow.

## Public Forum

Start monitoring air quality at the pedestrian level, near traffic congestion zones, near refineries in the northeast, and having more comprehensive comparative methods on stricter scientific standards.

Statistic re Edmonton's ecological footprint in 2008 is disturbing. Too many Ford 350 supertons gas guzzlers on the road! Part of the reason people drive so much is because of the transportation system.

Strongly agree in scientific basis of monitoring air and reporting hard numbers as a way to increase awareness and promote change. Desirable areas to live should not have to factor in air quality that historically deems that "living out west" of the city means a better quality of life overall.

Strongly agree with a real time monitoring system. If the public is aware of what the numbers are, they are better equipped to make any changes. I strongly think that the city needs to develop incentive plans in order to gain more public response. I understand there is a limited budget, so monetarily this may not be possible in the near future. However, incentives may not need to be monetary. This is a new thought for me so I cannot come up with any ideas for that at the moment but I will email if I do in the future. We live in a wonderful city and in a fabulous (if not the best!) country that is no reason whatsoever to not adopt the air quality standards - and better - of the WHO. Non-monetary incentive plan: communities can achieve levels of status (i.e., bronze, silver, gold). Each accomplishment can be strongly recognized.

The City should also work with Province to spread industrial development across province, rather than concentrate it in capital region. The City should do its own air quality monitoring, with its own infrastructure and report conditions against national air quality for health index (which is already in use in every other province). Bottom line is, I don't trust the Government of Alberta with our air quality and think City needs to do more to ensure it. Finally, City should look at natural gas district energy systems where feasible so that we could rely less on coal-fired generation to the west of the city. More should be done to protect green space, natural air filters. City should continue to prioritize LRT expansions and should do more to promote emissions-free transportation (like cycling).

The refineries are quite a concern for me - I suppose due to "spill drills" in elementary school for toxic releases into the air. It would be nice if something could be done to lessen the funny smells from refineries on Hwy 16 (Yellowhead), especially since sometimes fumes drift across the roadway. Another helpful measure would be to educate citizens about fires, both in fireplaces and fire pits. While it is too imposing to ban fire pits (I enjoy having a fire myself), it would be good if people knew to make small, hot fires, instead of large, smoldering, smelly nuisances. I have seen numerous editorials about this in the Edmonton Journal and I think this would help improve local air quality.

There needs to be much greater awareness among Edmontonians with respect to air quality and the impact of our daily activities upon this - e.g. vehicle use.

This is a tough one - the Province really must do more, but at the very least, we must reduce vehicle idling and the way to do that is with a bylaw! Set rezoning density targets to increase density and reduce sprawl.

This is very important for those struggling with respiratory issues. Very important!

Though I would really like to see other changes implemented to ensure that air quality is improved or does not deteriorate.

Through better information and education available. Citizens would be more willing to pay for costs incurred.

Totally support changing attitudes about unnecessary vehicle idling.

Very good objective, "health and ecosystem wellbeing." We breathe in oxygen, exhale carbon dioxide. Plants take in carbon dioxide, produce oxygen. How much is the "green" areas, parks (grass and trees) per subdivision. If there is more asphalt than green, an imbalance is created which decreases air quality. Health side, as humans we can carpool, drive hybrids, take public transportation, walk, ride a bike. We can produce electronic vehicles, as a society we are there, but let us not touch the 'oil industry'.

We need to make public transit more available not just in our city but to other surrounding cities. While we do now offer the service it does not run all day. I feel that in doing this it will significantly reduce the amount of driving citizens do. The more convenient transit is, the more likely are to use it.

We should have the standard from WHO. Costs shouldn't be a consideration - the ends outweigh the means. Have an Air Care program for vehicles. I walk on the street and it sucks when trucks and cars blow their black/blue smoke with no care for people breathing this in.

What are the links between this item and the items located in "The Way We Move" and how will they dovetail? What are the options of increasing a downtown idle-free zone and what options are available for enforcement for this?

What happened to our anti-idling bylaw? I am so disappointed that Council caved on this utter no-brainer.

What is WHO's standards for air quality? Air quality is necessary when other levels of governments are cooperating. It is a tax burden on civilians if air quality standards are not set at a certain level. We should start monitoring and setting standards before it is too late.

Where are the battery and electrically powered vehicles? Hybrids may be an intermediate step. The City has stalled on air quality but still we wish to densify and make it worse! Houses must meet the latest energy saving technology to save burning fossil fuels.

Yes - more education needed. Strongly recommend eliminating city use of pesticides and herbicides on public lands - this dramatically affects air quality and citizen health. Also strongly recommend reduced use of lighting - reducing light pollution. This is wasteful of energy and in fact creates less safety at night. City is going way overboard on increased lighting.

## Biodiversity

"Biodiversity offset approaches" - what does that mean? It sounds good, so that's why I agreed with it. Biodiversity is not just on a decline - read the science. We are embarking on the next great period of extinction.

(Member of Pesticide-Free Edmonton Coalition) The City needs to take action to eliminate the non-essential use of pesticides on public and private green spaces. Research shows that a ban on non-essential pesticides combined with an education campaign is the only effective way to substantially reduce our exposure to these harmful substances.

Absolutely! We need to integrate biodiversity and green spaces and food security research permaculture practices, e.g., food forests that are vertical farms, less water, more diversity. Surround Edmonton with food producing biodiversity that ships food to the inner city where it's processed.

Agree so long as the biodiversity replaced focuses on native organisms and their respective habitats.

Also need to protect natural "corridors" through the city to avoid bio diverse areas becoming "islands" which are vulnerable to species loss. The policy to protect natural areas should be strengthened and, if possible, there should be buffer zones around them.

Also reduce urban sprawl so that fewer ecosystems are disrupted.

Also, there should be a "Central Park" that features a wide array of biodiversity; examples are Japanese peach blossoms, different types of greenery. Maybe before building any subdivisions, impact assessment and plans for replacing the loss of biodiversity needs to be approved. What about green roof technologies for subdivisions as well as commercial buildings. Perhaps this can support biodiversity loss.

As a family we enjoy the outdoors and natural areas in our city. Please keep them for everyone's enjoyment. Have more parks and green spaces within the city.

As developments are approved, I'd like to see developments that minimize disturbance to the existing ecosystem given priority. As important as replacement and offset, it's important to minimize the initial impacts.

As well, the areas now planted in grass, as much as possible, should be replaced with a permaculture type system which if done right maintains its own ecological process. On top of this, it educates, provides food for the needy plus much more. Lawns and grass are a waste of resource. Some is good but not what you currently maintain.

At least to the extent of maintaining wetlands, and major vegetation.



## Public Forum

Be more involved in specific applications for rezoning. Preserve what we have as much as possible. Buy more properties to conserve biodiversity lands. More public education is needed so people know why this issue is important.

Besides connecting to river valley, this could provide cycling and walking paths for movement of people for leisure, exercise and getting to and from work and other activities.

Biodiversity needs to be encouraged by stopping growth at the edges of the city. Build up instead of out and keep animal habitat where it is. Encourage biodiversity through green roofs. They provide important food and insect habitat.

Biodiversity offset strategies - should have been in place 20 years ago! We have lost so many important natural areas. Wildlife corridors very important too. How about some biodiversity in neighbourhood parks? Some fruit trees and bushes would be so nice. Also, many more native plants.

Biodiversity should be conserved in the river valley and ravines but not with species that would threaten humans (i.e., bears, wolves, cougars, etc.) but this must be balanced with allowing the city to grow and maintain its present density pattern. Suburbia with reasonable sized lots is entirely compatible with biodiversity as long as strategic parks maintain the present mix. Higher density should be encouraged to some extent only it should be recognized that the vices of current private vehicles will take on an entirely different dimension with the event of personal by means of alternate energy if electric.

Celebrate biodiversity through radio spots and education programs. This area is too important to have only one objective and one policy proposal - allocate more resources.

Concept needs more explanation and exploration via public debate.

Consider: invasive species removal and replacement with native plant species. Organizations such as River Watch are a potential source of volunteers. Support for city and non-profit collaboration. A City non-net-loss of wetlands policy despite changes by Alberta Environment. Support for River Watch to take citizens out into the river valley for education programs.

Could bylaws prevent development from infringing on all areas close (half mile) to water and ravines? Permits natural plant and wildlife safe access through (connecting areas) ravines from miles away leading to river. Implement much more grass/treed areas in downtown area i.e., breathing space. The recreated Churchill Square has killed off any chance of inner city biodiversity - even in humans! I know of no other city that has such a cold repugnant central area that supposedly was meant for gathering. Even if red and gold colours were incorporated, it might lend itself to a more harmonious space. I realize, because of cost, ripping up the cold hard "special" cement is impossible. In the event the airport lands become available to the city, they should be recreated into a total living green space - perhaps reminiscent of New York's Central Park. The 30,000+ population could be incorporated nicely into fuller development of the area from 82 to 124 Streets and 107 Avenue back to top of river valley (no more infringing of course). Promote biodiversity by stopping use of green coloured paint and plastic. Let the natural living green rule!

Critical!

Cut down a tree? Plant two new ones. More trees = more oxygen = less carbon dioxide, more (fresh) air available.

Develop inventory of natural areas including treed areas and wildlife corridors, enforce preservation.

Developments should get tax breaks when they incur loss than the standard in loss of biodiversity. Set up measurement standard then implement.

Edmonton should make more effort to encourage perhaps even mandate green roof technology. The space taken up by our buildings can be made up above them. Look into German concepts as they have become a leader in this kind of legislation.

Emphasize native biodiversity as opposed to introduced/exotic species. Encourage citizens connection to (and comfort with) nature to facilitate support for biodiversity conservation.

Emphasize rather, development offset approaches.

Enforce stringently the city policy? Bylaw? On top-of-bank use. Reduce concretization of downtown. Do not allow the development of any more car-friendly shopping centres like South Edmonton Common and Mayfield Common where it is unsafe to be a pedestrian, where the whole area is concrete - not a natural area for miles.



Ensure that city departments support each other to protect/enhance natural areas.

Ensure that the impact new developments have on biodiversity is looked at and thought on.

Establishing more green space that is protected within urban areas, i.e. Dunluce forest is critical in teaching and showing people the importance of having green space within our city.

Even these "good" actions can come with costs. If this policy is adopted in similar to the No Net Loss wetland policy, then the biodiversity lost in one area can be recreated in another area. Will the income/race/social orientation be considered as factors in where this loss and re-establishment be considered? A bio diverse area/green space in one area may have more value to nearby low income individuals if it is moved to say a high income area where people already have access to transportation to travel further to other bio diverse areas. A poor person may not have access to a vehicle? How will they reach the newly located green space if it is too far away? There are so many levels of considerations here we have to be very careful. Even the most sophisticated restoration/reconstruction cannot duplicate exactly what was lost. Eco system services are at stake. Maybe a bio diverse area/green space is located in a groundwater recharge zone. If it is relocated, would we really find another site that allows for recharge? Will we look? And what biodiversity are we favouring? The city already culls rabbits, magpies and crows - wildlife that easily adapts to highly urban conditions. This is becoming the urban biodiversity. Will we keep culling? Are we favouring more cushy species like the quieter species like salamanders? What biodiversity are we after? Plants? Wildlife? If we create the new bio diverse hotspots - are we relocating the same animals that are losing their homes? Doing something is better than doing nothing yes, but we must be careful in the goals we hope to achieve.

Far more preferable would be a biodiversity policy which keeps developments from destroying biodiversity in the first place - losing biodiversity or natural habitat in order to promote development should be the last resort, and those developers who remove valuable natural habitat or wetlands should be required to replace twice the habitat they remove. Developers should also be encouraged to expand the species and design characteristics of the street and park vegetation that contributes to our urban forest - increasing biodiversity in those areas will pay great dividends down the road.

Honey bees increase biodiversity through increased polinization - this is especially important in urban areas that may lack biodiversity. Current Edmonton bylaws prevent housing bee hives. These policies and bylaws should be reconsidered.

How does rebuilding a "forest" (for example) somewhere else contribute to the health of the "forest" removed for development? This is not addressing the problem created by development.

How much will this cost? We should attempt to keep natural biodiversity within the development land. A policy panel should be developed in order to maintain management strategically.

However, the City needs to reduce/stop development to prevent loss of natural areas/biodiversity in the first place. It also needs to promote land-efficient development where each development is essential. It also needs to manage the river valley parks better for wildlife/biodiversity. The City needs to do more in the way of nature education/interpretation for its citizens (also more staff in Office of Natural Areas!). The City may also wish to take a look at provincial initiatives under the forthcoming Land Use Framework regional plans for ideas regarding conservation opportunities.

I agree that we are losing our biodiversity through our developments.

I am completely against urban sprawl and this policy seems to state that the city should build green areas to replace an area they have decided to develop. I would think these new green areas would be on the outskirts of town? I'm all for green space within the city, but I think the city should be more focused on fixing and maintaining the city they have now, not expanding.

I am interested in learning more and how Edmonton can utilize space more effectively with the goal of maintaining biodiversity.

I love the spirit of the objective. Perhaps more like "The City consider biodiversity into governance and development planning on par with existing social, economic decisions." I disagree with this bunk concept of offsets. As if biodiversity can be easily recreated. In addition, the offset model may do more to address biodiversity in the suburban areas at the expense of urban-intensive areas.

I think biodiversity is important and should be supported with native species.

## Public Forum

I would like to see less suburban sprawl. As a part time cyclist, I have a hard time doing all my errands due to the sheer distance between services. Suburbia does not meet my needs since it reduces the density of our city and thereby moves services further away from me. This translates into a vicious circle of people moving away from mature neighbourhoods and then the schools, stores and workplaces follow, necessitating the destruction of wetlands, agricultural land and forests. (Ironically, so people can get "closer to nature"). I wish there were a levy of some sort to encourage citizens to live within the Anthony Henday ring road. I feel that by establishing a fixed boundary for growth, it would be easier to quantify and control sprawl. Perhaps if houses were more expensive, rather than cheaper, relative to mature neighbourhoods, young families would vote with their wallets and be able to stay closer to city centre. Equals less roads/services to extend, less pollution, not being forced into a car to go to school or work (exercise!). Let's use zoning land to prevent further sprawl and protect the natural areas that remain!

Identify some ambassador species (plants, inverts, vertebrates) that citizens can champion.

If offsets are recognizing the value of secure biodiversity, uninterrupted biodiversity sites are at their great value when left untouched. Disrupting ecosystem continuity and even adaptations within impacted ecosystems and moving these regions looks good on paper but how would this offset approach inform the migrating species that their homes have moved? Does this method propose to catch all the water creatures and release them into new offset zones? This isn't biodiversity; it amounts to bio-mimicry. Unlimited growth on a limited biosphere is unrealistic.

If this is used to ensure any destruction of the environment is remediated by the developer, this is okay. If it just provides a cap and trade system that allows development to run riot as long as they pay for "offsets," this is not okay!

If we recognize the economic, social and environmental value of biodiversity and natural ecosystems in our city, then we should preserve them in their current state because this is the highest level of value they can produce as offsets will always reduce their quality as the science and methods cannot fully reproduce their functions.

In the White Paper, the loss of sensitive areas was discussed. Could zoning or bylaws be used or established to prevent these losses? Obviously, the current approach of buying back these sensitive areas is not working perfectly. I quite liked the point of encouraging the planting of edible, native species. I think this is important for both biodiversity and food security. Can areas in decline/disrepair (in residential neighbourhoods) be reclaimed as parks or wildlife areas? On that same note, reclaim part of the ECCA lands as an urban park/forest/farm/garden.

Incentives for reclaiming green spaces in terms of community gardens, true biodiversity and not just fertilized lawns. With reduced sprawl, the concept of community and community spaces will grow. TWWG document should be the central guiding document and override all other documents, including The Way We Move and The Way We Grow.

Increase education - way more. Citizen involvement needed. Very poor awareness. Increase programs for kids. Ban cosmetic pesticides.

Invest in snow blowers instead of sanding. Our neighbourhood has 7 meter boulevards with mature trees that could use the moisture. The sand and salt deteriorates asphalt creating cracks and pot holes (wood chips) could provide traction after snow blown onto trees.

Is there an option to look to our past through consultation with Aboriginal Elders to discuss the biodiversity that has been here and been used for thousands of years, to answer some of our future concerns around biodiversity. Finding a made-in-Edmonton solution instead of always looking at what other, non-Aboriginal, heavily developed nations are doing.

Just stop the sprawl! Develop vacant lots within the existing built up area first. Species balance: Investigate whether magpies and seagulls are impacting other bird species and, if so, decimate the population, e.g., some places in Great Britain have magpie cull programs.

Magnanimous ??? Of urban sprawl. Restoration of degraded areas. Less concrete more marshes.

Maintain natural/green spaces that exist. Each community/neighbourhood should have its own green spaces independent of the "green" river valley. It tends to skew the "green space" numbers. This ties in with the food security and water. Why don't we have green spaces - a hub - with community gardens, orchards, etc. or allow for shared garden space. Wild foraging - promote natural areas that have wild foods growing. Walking through the river valley there is a bounty of saskatoon chokecherries and so on. We should have this throughout the city. See Jasper Place Highschool has introduced 'permaculture' to a courtyard space - this idea can easily be done in any space - residential and

business/industrial. I'd like to see business/industrial be encouraged to have green roofs, water collection, green walls...there is so much we can do!

More community garden space needed! More protection of fragile ecosystems in river valleys and ravines. Don't kill off the coyotes! (for example). Reduce light pollution around parks and in residential areas, also in light industrial areas.

More important than offsets are NSPs with integrated solutions. Permaculture, permaculture, permaculture. Promote education, awareness and trades based on principles of whole systems landscaping and food production. Make our green spaces bio diverse and contributions to food security while using strategic design to minimize maintenance costs. Capture rain water. Charge a tax on paved areas to minimize storm water runoff. Encourage permeable paving using paving stones like they do in Freiburg, Germany. It's beautiful and eliminates polluting runoff.

Must be an equal replacement not as will fit in somewhere that the city doesn't have plans for.

Need a combination of education, prevention as well as mitigation. Perhaps advisory council or some other body be put together to recommend how to proceed. This body should include stakeholders, specifically including Aboriginal peoples and Elders. Their knowledge and deep respect for Mother Earth would be a great asset in this endeavour. Perhaps doing land use studies or collecting environmental knowledge, traditional stories, would help guide us in protecting biodiversity. School programs, stricter rules about development in Edmonton (avoiding sprawl), identifying habitats and ecosystems that need protection, stricter rules about dumping or landfill sites. Don't just replace biodiversity; prevent its destruction from occurring.

No net loss policy is critical.

Not only does biodiversity need to be replaced, it needs to be protected and encouraged. In order for this to happen, I think people need help becoming aware of its value, not only psychologically, but in the sense of "service." Biodiversity is not something that is just "good for the environment" - it is also directly beneficial to us as human communities. Integrating natural and urban systems would help bring people into contact with natural biodiversity, which is good for the whole system.

Of course biodiversity is an important priority for Edmonton, considering we have an exceptionally large green space that can be preserved, expanded and enhanced. Initiatives to promote the switch from monoculture yards to diverse/permaculture green spaces would be fantastic. Promoting the design of "food forests" in public green spaces has the potential to collaborate with food security programs, to improve biodiversity and permanent ecological culture that is also esthetically pleasing and offers an education experience for those who want to contribute to the biodiversity of our landscape. Supporting green roof development will also do the same. If the City is not involved, who else will be? We look forward to seeing how the City will engage communities in this process.

Offset approaches always seem inadequate for me; it seems like a cheater's way out. More effort should be done to maintain diversity within development (green space, etc.) rather than continuing conventional development and making additional efforts on the side.

Offset within city areas.

Offsets should be used as a secondary priority. If possible, protecting biodiversity in its original form should take a primary priority.

On a practical level what can residents do to enhance biodiversity - seems like a great concept but how do we do this? How do people educate themselves, what groups in the city are working on this issue? Is there a list of resources?

Once lost, is biodiversity ever "replaceable" at all? Better to scrutinize development first for its environmental impact, than try to close the proverbial barn door. Why not require a percentage of land be retained in a natural state (as in school/parkland policy) in new developments/subdivisions, at developers' and city's cost (shared). Benefit to developer is natural area retention (instead of concrete "jungle") esthetics, long-term health of community they've created and more.

One of the most significant sources of biodiversity that has been lost to development has been wetlands. Encourage private developers to use constructed wetlands to manage stormwater runoff. Will improve runoff water quality reaching the NSR. At the same time creating naturalized urban areas that act as both habitat opportunities and recreational amenities.

## Public Forum

Only allow development that encourages/maintains some biodiversity, i.e. green space, trees, plants.

Parks and green spaces are important!

Perhaps new developments need to have more requirements to create parks and replant to make up for some of the loss.

Permaculture incentives! Nature science tours, river valley history tours - teach people and they'll love it more. Why did we sell the Space and Science Centre, again?

Please consider a radical shift in the whole idea of "development." I am so against any more new neighbourhoods, when there is so much sprawl already. Inner city densification could take into account necessity for more natural green space though including green roofs, native plants, wildlife corridors, etc.

Please consider: better lighting policies and regulations to reduce waste and light pollution - big effects on many local and migrating species. Sustainable practices for soil and planting management in roadway green spaces, school campuses and parks. Follow the lead of Vancouver, Halifax, Toronto, etc. and eliminate the use of chemical pesticides and fertilizer.

Please create policies to ensure that developers maintain green space, trails and trees. We should have a tree policy for developer-owned land - 1 tree removed = 1 tree planted or moved elsewhere.

Protect our environment by restricting the roads and bridges being built across our rivers and ravines. Leaving the beavers to do their work - not destruction to their dams, as they help with marshland and other habitats.

Protect the natural areas instead.

Some of the off-set could include greening roofs of new structures and even maybe of existing structures.

Sometimes it may not be possible to replace what was lost through developments. It is more important that initiatives are made to inhibit the amount of green space and biodiversity lost. The questions should always be asked "Is this really necessary?" "Is there a way to achieve the intent of this development another, non-destructive way?" If the outcome is inevitable, and biodiversity is lost, it should be absolutely mandatory to replace it. It should also be replaced by the group that was responsible for removing it.

STOP sprawl - Edmonton has plenty of opportunities for development within the current urban area - stop building suburbs and giving them names of the areas they destroyed (i.e., Twin Brooks).

Tax break, increased citizen participation on adverse effects of pros of biodiversity cause and effect with simple bullet points understandable to all community; will increase more participation implement.

The best agricultural land is being covered by concrete for new sub-divisions and roads. We need more community gardens and to encourage people to be more respectful of animal habitat. We need to be more educated to what is going on around us.

The most prominent symbol of the loss of biodiversity are the clean manicured lawns in front yards. We should not discourage naturally landscaped yard or gardens. Minimize or eliminate front yards in new developments.

The same types of plants that have been cleared for development could be required as part of the public areas planting that is required of developers. Education of the home buyers and developers about the plants that have always grown here and the advantages of keeping these types would be necessary. A survey of the plants (trees, shrubs, grasses, other plants) would be necessary before development begins. In theory, animal biodiversity would follow the plants, but some of the larger animals - coyotes, deer, for example - will probably not be able to mix with human development so another solution for displaced animals would have to be developed.

There should be investment in conservation for native species. Perhaps invest in reintroducing habitat to native species in previously developed areas. Keep protecting the biodiversity.

This doesn't address the problem of development.

This is an option but first biodiversity must be clearly defined and monitored. It should be more encompassing than just number of different species living within an area.

This is difficult to do. There must be more effort to restore natural plantings.

This policy should be a last resort - do not let developers see this as a way to justify destroying and building over significant existing natural areas. Whenever new neighbourhoods are built in places with existing significant natural areas, must ensure minimum damage is done before giving development approval, e.g., Fulton Creek Marshland, Big Lake area.

Through development around Edmonton we are seeing the loss of many plant and invertebrate species. We need a plan to help restore what is lost, protect what is still here and fix what we have wrecked.

To the greatest extent possible, natural biodiversity should be maintained. "Offset" approaches are excellent but often do not capture the complexity of natural systems (e.g., natural wetland vs. man-made).

Use natural areas as a more prominent part of the parks system (i.e., more of MR contribution should go to natural area protection and preservation).

We have to reduce the urban sprawl in Edmonton even if it means that people may not choose to live in Edmonton because they cannot acquire their dream home near a ravine, etc. Let them go elsewhere! To continually provide opportunities for people with money, we destroy any possibilities of maintaining sanity and controlling our footprint.

We need to protect the existing biodiversity, but also provide incentives to promote new protection. In urban centres, have space for areas that are more than just green space but bio diverse areas that are pesticide free and don't use alien species. We need to promote and prioritize this protection ahead of short-term economic growth. TWWG needs to be the central plan that the other city plans support.

We need to recognize current areas of biodiversity and protect them; and if we can identify developed areas that can be partially restored or changed.

We should also be identifying areas to be protected - why replace if you can avoid destroying in the first place.

We should provide multipliers of biodiversity offsets i.e., 3 x area disturbed.

We should re-establish biodiversity through permaculture, natural areas, park areas and green spaces. Public "landscaping" is a huge opportunity for food production, gleaning and increased levels of wildlife, to be involved.

What kind of "biodiversity offset approaches" are being considered? I believe it's important to consider green areas that are useful such as community gardens and parks. If it's simply an area with a piece of lawn, that will not help biodiversity in the slightest.

When Grade 1 children get their blue spruce seedlings, coordinate with the schools in that area to plant them all as a forest along a roadway/freeway and label the forests as coming from that school - e.g., Capital School Forest. When someone dies, encourage the donation of a tree in their name/memory.

Would like first priority to be biodiversity retention (vs. replacement).

Would like to see a biodiversity template applied to all decisions/ a "green" template to decision making. Develop a biodiversity strategy for the city. More education within city would help. Citizens do care about biodiversity but need knowledge/leadership.

Would like to see more advertisement or notification about biodiversity practices and policies that are happening in and around the city. There is constant, seemingly never-ending development happening in the city and many people have little or no idea about how this development is being managed and regulated. An increase in the knowledge available to the public about the threats and benefits to biodiversity in and around the city would greatly improve the individual's input on a day to day basis.

Would suggest a bio diverse area in the new 109 Street development.

## Waste Management and Ecological Footprint

A fully automated collection system (underground vacuum system) is definitely the way to go. It reduces both noise and air pollution. This should be included in all new developments, especially in the municipal airport lands. This could also help in revitalizing downtown east of Quarters district. Old garbage sites create big hills. These hills or the soil could be used to develop new ski hills with higher elevations than our other ski hills.

A. Crucial to implement non-residential recycling system. General response to TWWG: This policy plan is an opportunity to do a massive sustainability education program and will require the same to be successful. I would advocate this forum be readvertised as a "drop in" opportunity to respond to the plan. I know numerous people who did not attend because they interpreted it as being something that needed to be attended over 2 days for 12 hours. I do think the format is good.

A. Disposal fees must be such that alternatives to landfilling of commercial waste will be used. B. It's not what we generate - it is what we do with the waste. C. Footprint has many factors involved. Why lump waste management into the same topic as footprint?

A. How is this implemented and enforced? Without bylaws/regulations or incentives, this is not achievable. C. Ecological footprint is not clearly linked to waste management alone - why were these chosen to be linked/combined? Ecological footprint encompasses much more than waste management and by linking them, the power of ecological footprint is reduced.

A. Industry can often reduce waste by selling it (someone's waste is another's resource), but citizens cannot. In fact, it is ALWAYS a cost to us. Currently, there is no monetary incentive to reduce as all households pay the same fee. My (1 bag + 2 blue bags every 2 weeks) is the same fee as my neighbour's (9 bags per week) - same family size. C. To do so, people need to talk about footprint and understand it. And, lower footprint needs to become a social norm. Since transportation is a significant part, this goal absolutely has to be linked to "The Way We Move" and other "social" policy.

A. Non-residential sector needs to be brought into the compost/recycle stream. Our firm (ISL) is collecting compost and recyclables and sending it to the materials recovery centre. We'd be happy to share our experiences (good and bad) with you. Contact info (record #54). I was surprised to see how poor our footprint is in spite of our world class materials recovery centre. This is partly due to our industrial base but we should not use this as an excuse. We need to continue our creative and innovative spirit in order to better perform.

A. Residential activity (i.e., the resident's interaction with their garbage can) will reciprocate to non-residential waste. B. I don't think I know what this means. Therefore, I can't imagine more buy in.

As long as the safety factor is pushed so hard - reduction of packaging - especially plastic- we're unlikely able to reduce personal waste. The current society has been trained to be "throw away" consumers. Unless more food could be grown locally, and incomes reduced, good luck on reducing the ecological footprint of Edmonton - city that I loved.

B. Not sure how this is supposed to be implemented. Implement a compost bin program (similar idea to current blue bin program).

B. We should set a high standard and continue to be leader to others. Edmontonians feel proud about their recycling/waste management system and we should build on it.

B. Why on par?

Ban plastic bags - education about the negative affect of them.

Better education about recycling, eco stations. Implement bylaws for ICI waste to achieve same diversion rate as residential. More waste avoidance/reduction policies - we shouldn't just depend on technological fixes like recycling and bio fuels.

C. Canada's ecological footprint on a per capita basis is 20 times or more the global footprint. Our footprint is appropriate in relationship to own climate and country is just fine. While I agree to further reduce waste, this reduction must be phased within parameters of affordability and sufficient time to allow efficient adjustment.

City should develop waste reduction plan that deals with city as a whole. Perhaps a green procurement council on something that focuses on bringing largest procurers to the table. The City should increase landfill charges to make waste diversion more cost-efficient. City has made great progress on waste management and this should be acknowledged.

Clearly lowering levels of waste (both residential and non) must become a major priority. Increased publicity and advertisement of strategies would be good.

Cogeneration! Let's support compostable toilets and neighbourhood level compost and hydroponics/aquaponics.

Commercial waste needs to have access to the same recycling and sorting/composting facilities as our residential waste.

Commercial waste reduction or efforts for reuse should be an overall focus for further waste initiatives. Residents that have incorporated 3 Rs into daily home living often are discouraged by efforts/options available at their workplace for waste reduction.

Commercial waste should be treated the same as residential at their cost to reduce commercial waste.

Composted. Clean up ICI - give WM and others a push to clean up their waste management - get it cleaned up.

Composting depots should be available in large residential buildings, e.g., seniors' residences.

Concerned about our waste practices. Although the city boasts of a national best for recycling, what efforts are being made to divert resources before they hit the landfill? The City launched the "reuse" centre in an attempt to show it is making itself a leader in the "green race." This project is a complete waste of taxpayers' money. How can the City justify a project that drains financial resources and doesn't meet one need within the community? Same issue with the eco stations, who collect perfect equipment and resources only to "recycle" them for minimal profits. Last year over 2200 tons were collected in the blue bin event. A majority of this was in useable condition but because of legislation, all of these items were scrapped. You speak of increasing diversion rates from the landfill, what steps have been made to prevent useable items for entering the landfill? How can the City justify projects like the eco station and reuse centres but not encourage public innovations like the First Free Store? Does the City not look at the happenings of its private sector for the innovations of tomorrow?

Conditions: Considering impacts on economy and businesses.

Consider a tag system where residents will be charged extra for the number of bags over a set limit.

Continue to have other cities and countries to visit our facilities so they can take our ideas home and use them locally. Learn about other ways from other cities and countries that have better waste management. Create a consumer demand and market for reused/recycled materials, i.e., uses for tires - convert to shows or other things for homes and businesses. It would be nice to see recycled timber used in parks and homes. I have seen but can no longer find large landscaping timbers made of recycled materials (4x4 or 6x6 or 8x8 size). Can we find ways to use/reuse and recycle more items? Can we increase awareness of less packaging, etc.? Change attitudes from wasteful expenditures and crazy commercialism. Canadian people tend to throw away a lot of things that could still be useful to others. Given tax breaks to reuse centres or promote agencies that encourage reusing things.

Curb-side organic waste pick up (as in Sherwood Park for example) might be helpful in getting individual residents involved in reducing our ecological footprint, as well as improving efficiency in separating waste entirely.

Develop a residential compost program.

Does the City support suppliers who use reduced packaging and are the "greener" alternative? It has to be as easy for industry and commercial activities to recycle as it is for residential. If not picked up at site, then convenient locations or sub stations contracted to the city with convenient hours - 9 to 5 won't work for small companies that have those hours themselves. C. Our ecological footprint can be lessened if we choose better uses for the area we have. Maybe "million" dollar mini acreages don't have a place in the city anymore. The sustainable local food supply, better choices for energy types to run our houses and businesses, not necessarily building projects just because someone has the idea, all make for a smaller footprint.

Edmonton has a great waste management facility! Industry/workplaces need to have access to recycling. I work in a hospital and can only recycle paper so I end up bringing home plastics, cardboard, compost to recycle in my home.



## Public Forum

Residents need to feel empowered to do these things and feel that small things make a difference such as using the Reuse Centre.

Edmonton has done a great job setting the bar for waste management so far. However, there are many areas that can improve. The biggest problem with waste management is the disposal of many perfectly reusable items. Most of this could be solved with an appropriate sort on the waste. The eco stations deal with much of our perfectly reusable resources, but they take the resources out of the reach of the public. Recycling is great; however, reusing is far more efficient. Many of these items could be diverted and handed back out to the public need. Recently, Edmonton's First Free Store opened and I have been there many times. They are already helping to divert much waste and put it back in the hands of the people of the community. If a system like this was launched on a larger scale, it could keep a good majority of resources trading hands rather than filling landfills. They also promote a concept known as "dismantle vs. destroy" which makes sense, especially with all our electronics. If a washer breaks, it should be torn apart so the parts can be reused and the waste can be put in its appropriate recycling streams. There is a lot the City can learn from this store's concept, which coupled with the City's already great system, could set the waste management bar for Canada.

Education is the most important thing for this issue. People don't even know what is recyclable and what is not. Letting people know that the products they purchase affect how much waste they generate is important. Help regular people set goals for reducing waste and how to do that is important. I think there is a disconnect between the individual and the large picture, and education can help citizens understand their role in waste management on a personal basis.

Encourage private waste companies to develop waste diversion. Limit household garbage level. Household cap max. Establish limits for Edmontonians to meet or exceed those of our peer cities/countries.

Excellent proposals. To reduce ecological footprint need to address more than waste. Limiting urban sprawl, increasing public transit, creating a good, integrated web of cycle paths, etc. are also important ways to help decrease ecological footprint.

Focus on non-residential sector because of potential for significant improvements here.

For the people in condos and apartments, there should be blue bins, etc. - if necessary, by mandating it.

Have a City bylaw banning plastic bags for business. RMWB has done this and been content with it. It is difficult to have a policy on reducing how much to buy/throw out for residential sector (compared with say Japan). The City can try to make a habitual change promotion. Encouraging products that are smaller would help maybe. Maybe there should be a bylaw to separate materials from ICI sector so that there can be statistics and we aren't just diverting the 'problem' to another town.

Have a way for residents to identify, organize wastes so they can be more efficiently handled. Develop a master gardener program the same as the master composter program to divert more organic waste into local composting so it doesn't have to be picked.

How do you propose to do this? Have you looked at what other cities have done? Other cities encourage a springtime exchange on every block. Residents bring out unwanted stuff to the curb and look at and pick up their neighbours' stuff. Could Edmonton manage some free stores where people could pick up other people's unwanted stuff? The new eco station has one but it's in an out of the way area. One solution would be to charge people per bag of garbage. I only have one bag every two weeks so garbage disposal is very costly for me at the moment.

I agree Edmonton should produce low levels of residential waste, but I would hesitate using peer cities as targets for comparison. Improving waste management and waste reduction should focus on continuous year over year improvements. Edmonton has the resources to be a leader in waste management rather than an equal.

I along with others in my community have decided to volunteer with a new business venture that people in our community have started. It's called the first FREE STORE. What they do is take stuff the community doesn't want anymore, what they would be throwing in the garbage, and they charge them to take their stuff - about one third of what the landfill does and then they give it away. It's a huge project, the global reconsume project eventually they plan to have a huge warehouse and take everything if no one wants it, and they recycle it. I think this is a genius idea and so do many others in the community. It would really help the company out if the City would aid them. This is a way to keep almost everything out of landfills. It is complete global clean up. (Contact info - record #69).

I like these questions because I don't know; but I will be more knowledgeable which will enable me to make suggestions or reasonable comments.

I personally have been to the Edmonton Waste Management Centre as a private citizen three separate times. I am proud of the world class work we do here and we should definitely maintain our diversion rates both in residential and industrial sectors. Why shouldn't we hold business to the same high standard we hold ourselves at home? Obviously, cost is the biggest concern here so how can we encourage the business community to invest in our waste management process? I for one would support any initiative moving in this direction.

I think industry can do a lot better.

I think producers need to be targeted, it is excessive packaging that causes many waste issues and this is something the average consumer has no control over.

I think that the top priority should be to reduce waste for non-residential sectors.

If Alberta Environment isn't going to require commercial/industrial and construction/demolition waste to be handled better (recycling, reuse, composting), then the City should pass a bylaw to better regulate this industry. As a city, we should be requiring high standards in waste management from our corporate citizens.

I'm really proud of Edmontonians' efforts in waste management. Let's include non-residential waste in the plan for diverting waste from the landfill.

In order to achieve a reduced ecological footprint and lower levels of waste, an education plan needs to be put in place. Utilizing community leagues would be a great way to get information out. I believe most people think, "I recycle, isn't that enough?" Obviously not, since our waste is so high. We need to look at how people in countries who have a low waste generation achieve this, and learn from them. The City has the resources to create a great educational plan. Most people I know are super busy and do not have time to learn and implement strategies. Non-monetary incentive plan: Individuals/communities can achieve levels of status based on recording the changes they make to reduce their footprint and lower the waste they generate (bronze, silver, gold).

Industrial wastes need to be regulated so that they are not having recyclables and organics taking up room in the landfills. Also we need to put in the "no plastic bags" rules that Fort McMurray has.

Is it possible to partner with EEDC (Edmonton Economic Development Corporation) and/or Chamber of Commerce to establish a business program where businesses get recognition or "something" to reduce their waste going to the landfill.

Make it mandatory for all business to have recycle facilities in addition to waste. Most commercial businesses have trash only. This is an easy short-term goal.

More incentives and tools available for non-residential sectors to recycle, compost and divert waste from landfill. More waste management education for residential and non-residential sectors and individuals.

More recycle bins should be located in other areas of the city than just grocery stores. Maybe put temporarily at major events. So much garbage, even pop cans, is thrown away at major events.

My father's business generates a considerable volume of by-products. I did some research and noticed that the City operates commercial waste collection, so I provided the information to management for consideration. Unfortunately, the company decided not to subscribe to the recycling service due to cost (140% compared to landfilling everything with BFI). In order to attain our objective of recycling more commercial and industrial waste, we need to price recycling and composting service competitively with the option of throwing everything away. I intend to check back in a couple of years and see if it is worthwhile to switch to a recycling and composting service.

Need to have more specific targets.

Needs to be more waste reduction through the introduction of composting of biodegradable materials. Recycling is a must but it needs to be more implemented in malls and train stations for example. Policy makers need to be aware that waste reduction (through recycling perhaps) needs to be enforced as well in the inside of the malls. I mean in private businesses as well. Perhaps do a recycling police (I don't know). If we need to be up to par with waste efficient cities, we need to take that step in waste reduction. Be creative in waste reduction. It does not really end in recycle.

## Public Forum

Non-residential sector should be held to a higher standard, in part because it has a much greater contribution and because it is more possible to regulate.

Non-residential sectors achieving the same waste diversion rate as residential sectors is key! Hate that so many office buildings don't recycle!

Not sure what this means - reduce Edmonton's ecological footprint.

Please require 100% recycling of construction and demolition waste. Encourage industries that use recyclable material. In advertising, don't just encourage people to reduce and recycle but educate us as to the environmental costs of not doing it.

Pleased to see RMWB has a bylaw that bans plastic bags in grocery stores, etc. Every time I buy groceries, it amazes me how all the groceries are being put individually in a plastic bag just to be thrown in the garbage. We use over 3 billion plastic bags in Alberta. Many of them end up on our streets where they deplete and eventually end up in our food chain.

Provide periodic updates/suggestions to remind homeowners on a better/more efficient way to reduce waste, i.e., I'd like to start composting at home but not sure how to do it, what should be used, etc.

Read Chris Turner's book - The Great Leap Sideways - it will really help!

Recycling services need to be offered to commercial enterprises. I know some work is happening on this but more needs to happen. Not sure that regulating packaging, etc. is really a municipal issue but this is at the root of the waste problem. Not creating waste is better than recycling waste. Education is also lacking - I think people assume everyone knows all about recycling but many people still don't know what can be recycled and how. Many also don't know TVs, monitors, etc. can be dropped off at eco stations for "free." I am proud of our record on recycling but we should not rest on our laurels.

Reduced heavy metals in our waste; therefore reduced traffic.

Require that less packaging be used.

Residential waste should be charged by volume. Look into waste-to-energy/waste-to-heat. Ban styrofoam food packaging. Ban bottled water. Foster local processing of recycled goods. Foster deconstruction and reuse, instead of demolition of buildings. C. City should encourage smaller houses in the building code. The sprawl of huge single family villas has to stop. Living space over a certain reasonable figure should have much higher property taxes (proportionally).

Tax incentives - higher taxes for stores that sell cheap foreign goods or unnecessary junk (dollar stores).

The City is on the right track with respect to waste management. The Waste system should be "user pay" and high consumption and waste production should be penalized through fees and social/education programs. Considerable cultural change is required - more than anywhere I've ever been, Albertans seem to believe that it is their right to consume and to throw away.

The different types of infrastructures and corporations within this field of work, how much money will it cost to expand into the non-residential area?

This is a big issue. Do environmentalists focus their time, resources and efforts in targeting manufacturers, corporations on how they deal with waste management? As the world population grows, we as consumers will always have waste. The majority use proper methods of discarding their waste - recycling, trash cans or bins. But too many do not care, they consume what they desire and throw the empty container away. If the manufacturers and big companies (e.g., Tim Horton's) use biodegradable containers, that will help reduce much waste management.

Time for commercial/industrial to reduce their waste and be transparent about what they're doing.

To reduce the volume of waste at our residence level, we need to educate our kids in school (as it is done in Japan and Germany).

Waste is the result of consumption - need a lot of education and materials change. Ref: "The Story of Stuff."

Waste management is one of the most tangible ways Edmontonians can see their environmental impact and easily one of the most visible ways we can compare ourselves with other cities.

We have no reason to be behind any other city.

We should develop policy to encourage taxpayers to recycle more, less waste.

We should do more to promote the great job we are doing with recycling, but also promote waste reduction and reuse as priorities for residents. I think there should be limits on the amount of waste each homeowner and business can contribute to the system, like they do in Toronto or Strathcona County.

We should examine the potential/possibility of recycling composting items (green bag system) like egg shells, peels, coffee, etc.

We should stop putting our waste and garbage in the land. Our scientists should work to recycle all waste. What are we leaving to our children?

What are you asking me? Edmontonians should aim to generate less waste. Encourage composting for condo owners.

Where is the incentive for big business to adopt this? They could just dump and run.

Why doesn't the City have recycle/compost/garbage containers on busy streets like Whyte, Jasper and 124 Street? What volume of waste could be diverted by installing containers like this on city streets vs. the "everything is garbage" containers we have now? How can business be encouraged to produce products with less (often excessive) packaging? How can they be encouraged to support reusable shopping bag usage? Reusable food container usage?

Would definitely like to see the "blue box" program taken to the commercial/industrial sector.

Would it work to use the waste we generate as fuel, i.e. incinerate waste to generate electricity? To reduce our ecological footprint (energy consumption) reduce the number of streetlights maybe by half. To reduce our footprint, just have one big truck picking up all our garbage and incinerate it all. Would reduce the fuel consumption for pick up, I think...maybe I'm wrong.

Would like to understand my individual household impact so uncertain of the steps I am taking are really having an impact - some form for me to benchmark and then re-measure.

# 1C: Conversation Café Discussion Notes

Is it appropriate to recommend that the City make efforts to increase urban density?

- Yes, we must increase density
- Why can't we have greater density and services in outlying areas?
- Seriously, do we want to live in high density neighbourhoods? We love our back yard. Are we willing to live in high density neighbourhoods?
- High density neighbourhoods have their perks.
- Right now we have unconnected nodes....
- More density can result in more parks....more green space. We can find ways to make high density attractive.
- No incentive to actually live and hang around downtown.
- More density can create stronger communities.
- Food sustainability is important....community gardens.
- Develop a model community on airport lands. Don't reinvent the wheel....learn from other initiatives.
- Where should we develop density....follow public transit corridors. We must be cautious about creating too many competing "nodes".
- The city should provide stronger guidelines for community development and re-development.
- Look at Davis California where sustainable neighbourhood ideas have been implemented.
- Look at job-home connections....people travel across the city to work but should work closer to home. There have to be more zoning by-laws and planning guidelines.
- All companies participating in model community development must train their workers in state of art methods (in a systematic fashion).
- Are we giving up our free will if city becomes more active in our lives? We have an illusion of free will....ultimately, we often don't have as much freedom as we think. The need to take cars everywhere imposes limits on us and on what we can consider.
- City should go after the developers....establish requirements to develop in the inner part of the city first. There should be economic penalties or incentives...
- More requirements for companies that hold valuable inner city property as parking lots and vacant lots.....need to get on with using the land.
- Putting in "after the fact" requirement for landowners will be difficult....but putting requirements on the land at time of sale might be workable...depending upon the nature of the requirements.
- Less sprawl, more density is the right direction
- Its expensive to service more outlying communities.
- This plan should over-ride the growth and transportation plans.
- We are talking about the survival of the city...
- As we expand, we create tax increases...
- Is living in the suburbs more healthy? Not likely if you drive your car everywhere...
- Is higher density better living? It leads to more walking, which is healthy. I like my back yard, but high density can be attractive and healthy. More people on the streets.
- If high density is developed, we have to provide more public green space to go with it...

- City should stop giving permission for new suburbs. We have enough empty land in the city for future development.
- Full cost accounting....city should require developers to pay for the full cost of developing suburbs. This could include increase taxes on expansion lots.
- Zoning: Our zoning is a holdover from the 1940s. We separate residential, commercial and industrial. So...we have to travel to work. There should be consolidation so that I can take an elevator to work....
- We can see more integrated and people friendly developments in northern Europe.....people friendly means take away the cocoon of a car and more interaction among people in their community (cafes, public squares, shared transit). You have to provide public spaces that people can share.
- Read "Geography of Hope" It suggests greater integration in our city design. More use of outdoor cafes even when the temperature is cold.

### Should the City increase efforts to lead a transition to renewable energy sources?

- Yes, we have to make the transition....we should make it sooner, rather than later.
- Renewable energy: Edmonton should be doing it first. Set the bar higher.
- Is there short term cost in moving to renewable resources? We over-estimate the short term costs of being renewable. If you look at a 30 year period, you will be ahead cost-wise.
- We need to introduce the costs of carbon-intensive economy into the decision-making. We need metrics that fairly compare costs and benefits.
- We are not calculating the true value of the non-renewable resources we are using, e.g. pollution, health care, maintenance
- We need to think forward 7 generations.
- Best energy saving is the energy we don't use. We can achieve energy savings by changing our behaviour....education campaign.
- Encourage people.
- The real costs of owning a car....\$26 per hour.
- Change the building codes: more emphasis upon energy efficiency
- New code would affect both new and retrofit.
- If we don't use the oil, we can sell it to someone else.
- We need to promote "rapid" transition to alternate energy sources....that means 10-15 years. Fossil fuels will diminish in that time. Alternate energy will not provide enough energy...we also have to increase energy efficiency.
- As we use alternate sources, they will become more efficient and more affordable.
- Concern that alternate technologies cannot meet our needs....what about cloudy days and days when the wind is not blowing? Aren't we better off waiting for five years until the technology is improved? Maybe wind and solar will be obsolete...
- If everyone goes to solar (or any other tech) then there will be too much demand on the suppliers.
- Note that "efficiency" may imply that the energy is now available for something else....conservation should be the point.
- It is important to make the transition to renewable energy sources, primarily because of the development of technical leadership that can be sold worldwide. If the business community senses that there is support for this, it will go well.
- The opportunity for business to lead green technology is excellent for the next 10-15 years. We have many technology advantages...e.g. nanotechnology and the research council.
- Why couldn't a local shop build electric cars, for example?

## Public Forum

- Global demand for electricity will double in the next 20 years....where is that electricity going to come from? Renewable energy sources will be necessary as a source. We have to go to renewable, but how soon.....it is prime right now to lead these technologies.
- Bicycles are very efficient....we need to encourage cycling. We don't really have commuter paths, we only have recreational paths. For example, cars are parked at the curb....if the cars were 5 feet away from the curb, you would have a path and a barrier between the bike and the car. Bicycles need a right of way and fast moving.
- Montreal has lockers for safe storage of bicycles.
- Objective 1.4 (bicycles) does not have any suggested new policies....why?

## Should the City of Edmonton formally recognize climate change responsibilities and threats, and take steps to respond to climate change?

- Yes, we have to do something about climate change. Edmonton is a small place, though, we can't do very much about this global issue.
- Education is important. We need to get this information into the school curriculum. Youth lead these kinds of changes. Retired teachers could be leaders in this area.
- There is support for environmental education materials.
- How can Edmonton address climate change?
- Our governments must take action to address climate change...
- Carbon emission targets are necessary for city of Edmonton. Why don't we have targets? Why haven't we already been implementing this..
- I have reservations about investing too much in methods to reduce net carbon like nuclear and carbon capture.
- There are much lower cost methods to reduce carbon emissions.
- Encourage people to use bicycles.
- It is not practical to keep people out of their cars.....but there are other methods such as geothermal. And alternate energy sources.
- Alternate energy and energy efficiency can be promoted through incentives and feed-in tariffs.
- There should be incentives to develop passive solar housing
- Stop sprawl because it multiplies our problem
- Stopping sprawl would reduce concrete and reduce driving emissions. This is a simple change that affects everything.
- Look at supporting electric vehicles....caution that the source of electricity should not be coal power.
- Incentives and tax breaks are the way to go.
- Schools and community league buildings would be a great place for solar and alternate energy development. This would support education of those who live in the communities....communities could likely get matching grants.
- Commercial and institutional builders should also have incentives to do this properly...they have the scale to make use of solar etc.
- Note that many people live in apartments and condominiums and have almost no incentive to reduce energy use.
- Note that density will be limited if the city is getting higher taxes from dense developments. The tax base should be balanced to ensure that people have a price incentive to move into inner city development.
- Alternate idea: develop "integrated communities" where there is work, services and residential areas together.



- Look at what our core areas are----if developments provided green space along with higher density, we would be more attracted.
- The more fossil fuels we burn, the more we create climate change effects.
- Question whether climate change is real...what about temperature data? City should not focus on climate change....
- Instead of spending billions burying carbon, could we spend the money on energy conservation (e.g. insulation)
- The city must focus on energy conservation in its policy....improving building energy efficiency is an important part of the plan.
- We need to be accountable for our very high carbon dioxide emissions. We have to look at global equity.
- When we make the city more dense, we also increase the ambient heat that is contained within the city
- Note: pollution readings should be taken at street level, where we live.
- We should fight pollution, but I do not believe that carbon dioxide is pollution.
- The focus should be on reduction of fossil fuel use.
- WE need more effort to ensure that people use cars less (especially one person per vehicle), and bicycles more.
- Trolley and tram were good ideas.
- Higher density means less personal vehicle travel.
- More effort to reduce number of cars coming into the inner city....could include tolls on access roads to city centre.
- Reduce the cost of public transportation.
- It must be cheaper to take public transit than to own a car.
- If employers encouraged flex time, then more people could take transit....allows people to use the transit schedule.
- Flex time would reduce traffic congestion and idling.
- We could look at traffic signals---can they be altered during off times to reduce idling and waiting?
- Carbon capture is not the solution. It is a shell game. The money could be spent on other solutions to the problem. The upside is that we could sell the CCS technology.
- CCS won't work on tailpipes and chimneys. The best way to save carbon emissions is to not burn the carbon in the first place. Replacement of the coal with natural gas is a more efficient solution.

### We lose biodiversity when we build our city. Should the City protect and increase biodiversity?

- Yes. We have to look at other countries, like Germany where the space taken by a building must be replaced by green space above.
- Green roofs would decrease heat loss due to reflection.
- Skyscrapers could be greenhouses...
- We should stop planting lawns and make green spaces more biologically diverse...
- Encourage community gardens in public spaces.
- Backyard gardens support food security
- Minimize pesticides and agents that inhibit biodiversity....
- We are proud of the river valley---we should expand efforts to increase biodiversity in other parts of the city
- We should study Vancouver efforts to create community gardens. They provide incentives for developers to open lands that are not currently being developed.

## Public Forum

- Using inner city sites that can be used as living spaces is the right direction.....help people identify these areas.
- Develop the proposed arena site as a public area with recreation, farmers market etc. All of this could provide a public attraction and outdoor area year round
- Arena could be on the airport site and provide a park in that area.
- Biodiversity should be increased. However, the city was built on prime farm land. We need to consider the quality of the land resource before we allow building. On prime soil sites, there should not be building of subdivisions. This is needed to support food security and biodiversity.
- Urban gardens in the inner city will have two benefits: local foods and community spirit. They become a social place.
- Barriers to urban spread will increase the quality of life, because people have to cooperate.

### Should the City increase efforts to protect the health of aquatic ecosystems?

- Yes....we need to protect aquatic ecosystems
- Low impact development is something we have to do
- Should be more effort to protect aquatic areas
- Mill creek has a skimmer that removes pollutants...can this be used more widely
- Portland uses swales along the stormwater runoff areas...
- How do you allow for more water retention in the developed inner city areas? There are examples of methods that help manage water in these highly developed areas....
- In the long run, we need to treat storm water
- We should establish a board that oversees aquatic ecosystem health in our river valley
- Can we do more to allow people to capture water from precipitation. We should think about other ways to capture water on our residential sites
- We should think about how we can re-use grey water...

### Should the City establish an ecological footprint and make efforts to work with citizens to reduce the ecological footprint?

- It is useful for the paper to recommend that Edmonton establish an ecological footprint and a target to reduce footprint.
- We live on a planet...so we can't claim some portion of the planet as ours just because we have lots of land
- We need to reduce our ecological footprint from a global perspective
- All the recyclable materials and equipment in alley ways....wasted. Why can't the city identify items that go to landfill that could be re-used. Our group collected 2200 tons of good reusable stuff. Current issue: no storage space. The City should support the existing system to recycle these goods.
- People can make a living out of recycling waste resources if you support a recycle economy.
- Calgary has established an ecological footprint.
- Older apartment buildings are wasting a lot of energy. I would like to see the city establish an incentive for apartment building owners to make their buildings more energy efficient.
- There is not enough information on the news about the need to reduce our ecological footprint.
- We need better information in our schools. Youth will bring the message home to their parents.
- We need "real world" examples: things we can actually do to help.

- We need some kind of recognition for activities that contribute to sustainability. Recognize when people are doing the best they can, we should recognize efforts to make valued changes.
- Some apartments do not have convenient waste recycling bins.
- WE need more convenient services for waste management and recycling in lower income areas.
- We need more recycling areas around the city.
- There is no way downtown to put out a blue bag conveniently....a scheduled blue bag pickup would be very helpful. Or...there could be recycle bins at the end of each block.
- What about the people who collect bottles for the refund? What if we gave them money for collecting recyclables?
- Community newsletters should be an effective way to get the message to householders.....the effort to be sustainable could be a community effort and a community builder.
- Community leagues are a good place to build up ground level support.
- What about the anti-idling bylaw? Why isn't it mentioned? Note the health effects of idling near building intakes.
- We need better information about initiatives such as the anti-idling bylaw.
- When building permits are issued, air intake issues should be flagged for the developer.
- Food miles should be mentioned. Our food should be labeled in some way so that we know the ecological footprint of the food that we eat.
- We should encourage local gardens...especially school gardens that teach students about growing food locally.
- There is a lot of food around the city that is not used locally because we don't have the food processing facilities that use local raw food materials.
- Right now, local producers are responsible to bring their raw food to farmers markets. We need a better connection---use locally produced food locally. If there was a demand for local food production, the farmers would respond to that demand.
- Look at the example of victory gardens in WWII. Food was being grown everywhere.
- Encourage not only gardens, but other ways of growing food locally.
- Just before Spring, people should be reminded about local food production
- Mark---we have the soil capacity we need for intensive mixed farming northeast of Edmonton. We must think about whether we are going to protect that land and its food production capacity.
- We should have food calculators that help us know what the ecological footprint of the food is.
- We are always going to pay the lowest price, even if the food has been shipped from Australia.
- If we keep on going the way we are, we are going to run out of resources. We have to make the changes.
- We should make changes now, while we have resources to do it.
- The City should actively begin prohibiting problem packaging....plastic bags; water bottles. There should be more training of grocery store staff to encourage.
- Air deodorizers and fabric softeners are a problem and the city should consider indoor air health issues such as this. This is a concern because of growing asthma rates.
- If we are going to have more density of development, the internal air pollution associated with deodorants will become more severe.
- Increasing density will create concerns because of NIMBY.
- Upgrade building code requirements. Concern is that developers will develop at the lowest cost per square foot.
- I like the idea of 200 year building durability.
- Why live in the limited space of a high rise when you have to pay the same taxes as a homeowner?

### Other Comments

- What is the time horizon for sustainable development? We should be looking at developments that last 1000 years.
- Taking away the car can increase the attraction of downtown areas.
- We need shower facilities available in office areas for cyclists.
- There are opportunities to create no car zones (pedestrian access)...e.g. Whyte Avenue. We have to think about how people live on this street...for instance, we need bathrooms.
- Caution about the word "sustainability"...people can increase density of a community but they still need food, water and supplies. Business depends upon growing customer base, growing population, etc. Sustainable is likely not the right word.
- Note that peak oil (\$500 bbl) will definitely change the way we source goods from far away.
- TWWG talks a lot about oil, but not so much about coal. Electric cars would improve pollution, but would rely upon coal and its emissions as the source. This contributes to the carbon emission problems.
- We continually support the expansion of oil production with hidden costs (e.g. the Arctic)