

DAWSON CLIMATE CHANGE ACTION PLAN

February 2006

ENERGY

Energy: Transportation and Heating

Key issues in Dawson City

- Energy is mostly generated from greenhouse gas producing sources
- Unnecessary idling of vehicles is creating a health risk
- Large trucks idling in front of grocery store is a particular concern
- Burning wood piles on highway is wasting wood and creating unnecessary smoke
- There is too much reliance on vehicles for small trips
- Some buildings are very energy inefficient
 - e.g., the Recreation Centre has to be heated through the winter just to protect the pool liner

Potential strategies

- Heat pumps in buildings, using the river as heat sink (though there is a danger in extreme climates of relying too much on high tech solutions as there is a risk the technology could fail). Wood suggested as a backup.
- Transport waste wood from highway construction to communities who need wood for fuel
- Education and by-law changes are needed to reduce idling; inform people how long it really takes to warm a car; and promote the use of block heater timers.
- Use computer chips to start and stop refrigerated trucks to minimize need for idling

- Create a “ticket” that ordinary citizens can put on idling vehicles (information based, not a fine)
- Promote the benefits of active living, by encouraging people to walk, bike, ski etc.
- Dawson has opportunities to use solar energy (with wood as a back-up)
- Investigate the potential for wind generated energy as local and traditional knowledge tells us that Dawson has become windier in past 15 years
- Use local wood in building materials

Who needs to be involved:

- Yukon Government: Highways and Public Works, Forestry and Environment, Yukon Housing Corporation, Dawson City officials.
- Resource people who are good at communicating, who can approach people appropriately, and whose views are respected

Next Steps

- Idling – education needed, e.g., advertisements and articles in newspaper, ask doctors to talk to women (men too) with children about the health effects of exhaust and active transport, place leaflets in the post office.
- Continue communication with Highways and Public Works about burning wood along the highway
- Talk to Yukon Housing about programs for retrofitting buildings

Buildings

Key issues in Dawson City

- Lots of building materials are transported for long distances, more local material would reduce energy impact
- Local knowledge of where and what to build is not being utilized
- New interpretive center in Tombstone is an opportunity to build a model of a zero impact design.
- Building designs increasingly reflect southern tastes and do not take northern practicalities into account (e.g., bay windows).

Potential strategies

- . Convene a citizens forum to provide input on pending and planned building projects
- . Look at reducing crawl space (putting pipes in walls)
- . Design new homes to be adaptable to new fuel systems as these become affordable and feasible (e.g., solar, wind and heat pumps)

- . Sponsor a design contest to create a “Northern Design” home or other building

- . Develop incentives to retrofit existing buildings
- . Gather more geological information and local knowledge and use this to consider where and where not to build (e.g., in relation to swamp areas that could melt)

- . Develop a respectful way to gather local knowledge
- . Use building materials that reduce the ecological footprint that is left at the end of the life of a building

Who else needs to be involved?

- . Han Construction
- . Other construction companies
- . Political leaders
- Long-time residents

Next steps

- . Find a way for citizens to have input into approving building projects, i.e., Citizens Forum

Transportation

Key issues in Dawson City:

- . Too many people are using vehicles for short trips around town
- . No real carpooling system available
- . Lack of plug-ins
- . Idling of vehicles, including tour busses

- Idling at the ferry line up
- New tourist programs are developing using high emission vehicles, eg Jeeps and Snow machines
- Lack of city support for active transportation e.g., lack of bike racks and dog team parking lots
- No public transit in town or to Whitehorse
- Poorly developed trail system

Existing programs

- RCMP bike rodeo at school
- RCMP bike constables
- Recreation and Parks Association Yukon has a program here

Potential strategies

- Developing trails (needs trail use legislation)
- Walking to school rather than taking the bus
- One Tonne Challenge
- Workplace incentives – carpooling, shower and locker facilities for cyclists.
- Bike lock-ups
- Dog team parking lots
- Designated parking areas in town to encourage walking
- Plug-ins at workplaces
- Blue bike program
- Idle-free days
- Plough less and use less gravel on streets to allow for skiing in town

Priorities:

Short term

Tap into existing programs and establish an **active transport champion group** which could:

- Map out some walking routes
- Increase education and awareness programs in schools
- Establish a car pooling program
- Work with the City and Tr'ondëk Hwëch'in to ensure that Transportation issues are a part of the Integrated Community Sustainability Plan (ICSP)-This is the requirement for accessing the Gas Tax money.
- Identify Idle-free zones

Long term

- Public transport
- Tourism issues – exhaust from tour busses, Yukon Queen
- Incentives for eco-friendly purchases
- Refrigerator exchange
- Snowmobiles - lower costs for more efficient vehicles
- Tickets for idling

Who else needs to be involved?

- . Community in general
- . City government
- . Tourism representatives

Next steps

- . Develop a plan and assign tasks
- . Keep the momentum going
- . Identify champions to lead
- . Develop the Active Transport Champion Group

ENVIRONMENT

Land and Wildlife

Key issues in Dawson City

- . Blackstone: sinkholes and landslides appear as permafrost melts.
- . Yukon River erosion – North facing slopes that burnt over past couple of years are sliding into the river as the underlying permafrost melts.
- . Increased frequency and intensity of forest fires, which displace animals and create breathing problems for people.
- . Fur-bearing are animals moving away.
- . Migration of Porcupine caribou is interrupted by snow and ice conditions, leading to higher calving mortality.
- . Warmer water, Yukon River not freezing as hard as in the past
- . Salmon colour changes – not as many red fish (many silver), and not as many large fish
- . Lower river height, height falling sooner (used to stay high into July)
- . Geese migrating 2 weeks later in fall
- . Not as many mosquitoes, lots of hornets
- . Forestry – beetles are killing spruce trees
- . Exotic species migrating to Yukon (including parasites)
- . Impact on traditional lifestyle
- . Economic effects on tourism/hunting/health
- . Flooding of heritage sites
- . Changes to agriculture (capacity and diversity)

Existing programs:

- . Fire Smart
- . Some recycling at dump

Potential strategies:

- . More education and awareness needed
- . Encourage people who live on land to participate in land and wildlife monitoring
- . Encourage people to drive less and walk more
- . Reduce waste – especially Styrofoam and plastics, reduce packaging
- . Hold more meetings and provide more information-sharing opportunities
- . Train people in the communities
- . Utilize first Nations traditional knowledge
- . Present information in different ways as people learn differently
- . Get information into schools

Who needs to be involved?

- . Elders, people living on the land
- . First Nations, YTG, Churches, Schools, Politicians, Farmers, Hunters, trappers, user groups, others?

Next steps:

- . More meetings with information
- . Developing a strategic plan
- . Provide training on renewable energy sources

Who could lead the next step?

- . Governments can contribute to developing community planning
- . Tr'ondëk Hwëch'in, YTG, Municipality
- . Strike a committee

Air and Water

Key issues in Dawson City:

- . Sewage disposal
- . Drinking water is currently very good, but there is not much control over the watershed area
- . Rising water temperatures are hard on salmon and other fish.
- . More extreme weather could lead to more flooding
- . Air quality not great because of idling (even on warm days)
- . 2 cycle engine emissions pollute air and water.

- . Melting permafrost can cause changes in water flow in rivers.
- . Standards for tailing ponds may no longer be adequate.

Potential strategies

(note: the following strategies deal only with permafrost related issues)

- . Monitor the temperature in the permafrost
- . Measure quantity of flow into small streams from ground water
- . Interview miners about changes they see in the permafrost

Priorities

- . Permafrost monitoring programs

Who else needs to be involved?

- . City of Dawson, First Nations, ICSP, RRC, KPMA, YFWMB, YRITWC (Yukon River Intertribal Watershed Counsel), YESAB, YTG
- . Federal government needs to be brought back into the issue and fund water monitoring again.

Next steps

- . Lobby government to restore funding to enable water flow to be monitored
- . Rejuvenate Conservation Klondike Society.
- . City, school and Steward will partner with Chris Burns of the University of Toronto to install monitoring equipment in permafrost (part of Integrated Community Sustainability Planning).
- . Ask YESAB to consider permafrost issues when issuing permits.
- . Consult with RRC and KPMA regarding involving miners in monitoring state of permafrost and water flows.

Waste Management

Key issues in Dawson City

- . Domestic waste – too much packaging, plastic grocery bags.
- . Burning waste on top of permafrost at the dump is leading to melting
- . Two old dumps upstream of Dawson's water intake are a potential concern
- . There is no public collection of compost or recycling
- . Not much space is left at the current dump site
- . Oil change waste is not being safely handled
- . Burning organic waste is producing methane gas

Existing programs

- . Recycling is available at the town dump and at the recycling Depot in town
- . There is a good free reuse store at the dump

Potential strategies

- . Heating with waste oil
- . Composting at dump and at home
- . More recycling bins
- . Education to reduce waste
- . Bring your own mug (short term strategy using financial incentives)
- . Bring your own bags
- . Make canvas bags, ban plastic bags
- . Hold a dump party – swap your stuff
- . Move or line the dump
- . Ensure an attendant is at the dump
- . Impose a cost per bag of garbage
- . Make the dump a transfer station and take waste to Whitehorse

Priorities for action

- . Promoting cloth bag usage at grocery store
- . Promoting a composting program at both the dump and at homes
- . Lobby businesses to implement waste reduction initiatives

Who could lead the next step?

- . Klondike Conservation Society is a potential leader
- . City of Dawson
- . Dept of Community Services
- . Raven Recycling
- . Community and Transportation (Glen Hart – YTG dumps)
- . Dump Association (non-profit association)

Summary of Priorities:

- . Establish and strengthen anti-idling initiatives - establishing 'idle-free' zones and ticketing.
- . Establish a permafrost monitoring program
- . Establish a 'Citizens Forum' to provide input on pending and planned building projects
- . Promote cloth bag usage at grocery store
- . Promote a composting program at both the dump and at homes
- . Lobby businesses to implement waste reduction initiatives
- . Establish an active transport champion group
- . Map out walking routes
- . Increase education and awareness programs in schools
- . Create a car pooling program
- . Address issues related to tourism – idling tour busses, Yukon Queen, Jeep tours, Snow machine tours.
- . Create incentives for eco-friendly purchases