



REGIONAL MUNICIPALITY  
OF **WOOD BUFFALO**

# Transportation Innovation Summit

May 13<sup>th</sup>, 2009



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# Location

- Oilsands Deposits



- Municipal Boundaries



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# Wood Buffalo Facts



- 68,454 square kilometres
- 4 ½ hour drive to/from Edmonton
- 2000 Population – 42,156
- 2007 Population - 89,167
- 110% in 7 years
- 16.2% growth between '06 and '07 alone
- Shadow Population – over 18,000
- Senior Population – only 2%



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# Life in Fort McMurray

- Average Age – 31
- Average price of a single-detached home - \$600,000
- Median family income - \$164,122
- Land of 4x4's
- 24 hours, 7 days a week activity
- Plenty of new development and higher densities, with typical city amenities



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# Average Daily Traffic Volume

<i>Year</i>	Hwy # 69 North of Bus Transfer Station		Hwy # 69 North of Suncor		Hwy # 63 North of Ft. MacKay access road	
	Volume	% Growth	Volume	% Growth	Volume	% Growth
1998			1,800		190	
1999			4,670	22.9%	210	10.5%
2000			5,220	11.8%	290	9.5%
2001	9,800		5,780	10.7%	2,690	1049.5%
2002	9,690	-1.7%	5,610	-2.9%	2,550	-9%
2003	10,480	8.9%	6,110	8.9%	2,770	8.6%
2004	11,060	5.4%	6,440	5.4%	2,910	5.1%
2005	14,060	27.15%	8,190	27.2%	8,570	22.7%
2006	14,960	2.15%	9,500	16.6%	2,450	8.45%
2007	17,190	19.9%	11,620	21.7%	4,210	2.2%

Source: Alberta Transport Website



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# Vehicle Classification Counts 2007

<i>Year</i>	Hwy # 69 North of Bus Transfer Station			Hwy # 69 North of Suncor		
	Private Vehicles	Buses	Others (1)	Private Vehicles	Buses	Others (1)
% of vehicles	82.0%	6.8%	11.2%	75.8%	5.7%	18.7%
# of vehicles	14,465	1,200	1,976	8,588	648	2,124

(1) Others defined as recreational vehicles, single unit trucks and tractor trailers





# Oilsands Traffic

- Private Automobiles and Light Duty Trucks
- Commercial Vehicles
- Contracted Bus Services
- Dramatic Increases:
  - Traffic between Fort McMurray and oilsands
  - Incidents and delays
  - Costs resulting from overtime and lost production



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# Bus Travel

- Northbound AM Peak Hour Bus Passenger Volumes Departing Fort McMurray

AM Peak Hour N/B Bus Volumes	AM Peak Hour N/B Bus Passenger Volumes	AM Peak 3 Hours N/B Bus Volumes	AM Peak 3 Hours N/B Bus Pass. Volume
110	2,700	225	5,700



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# Bus Travel

- One of the largest operations in Canada
- 500 buses
- 800 employees
- Only 6 larger regional and municipal operations



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# Municipal Transit Service

- 10 current transit routes
- Travel anywhere within city limits within 60 minutes
- Ridership is only at 10% of population



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# Asset Management Plan

- \$110 million 20 Year Capital Plan for:
  - New buses purchased
  - New terminal planned
  - New maintenance facility planned
  - New registering fareboxes
  - Smart cards
  - Technology Implementation Plan
  - Organizational Plan (i.e. more staff)



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# Infrastructure Initiatives

- Downtown terminal location and design
- Improved shelters and bus stop areas
- Pedestrian safety island for bus stop access
- Customer information technology
- GPS-based and passenger counter technology
- Bus maintenance facility



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# Innovation For Future

- High Occupancy Vehicle Lane
  - Roads have limited capacity
  - Chaotic breakdown in flow and dramatic drop in speed
  - Average car occupancy is just 1.2 people per car during rush hour
  - 20,000 commuters per hour per direction = 18 lane freeway
  - HOV can mitigate those problems



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# Innovation For Future

- Bus Rapid Transit
  - Variety of modes
  - Variety of forms



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# Innovation For Future

- Bus Rapid Transit
  - Bus only, grade-separated right of way
  - Dedicated bus lanes
  - High level of reliability
  - Only professional motorists



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# Innovation For Future

- Bus Rapid Transit
  - Enclosed, attractive stations
  - Develop buses as hybrid vehicles
  - Safety factor – bus lane serves as accident lane



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# Innovation For Future

- Light Rail



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# Innovation For Future

- Light Rail



- Metro Light Rail Sydney



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# Innovation For Future

- Light Rail



- Future Light Rail



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# Innovation For Future

- Rapid Transit Rail



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# Innovation For Future

- Rapid Transit Rail
  - Electric passenger railway
  - Urban areas with high capacity and frequency
  - Urban – typically in tunnels or elevated above street level
  - Rural – run grade separated at ground level



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# Innovation For Future

- Rapid Transit Rail
  - Faster and more capacity than trams or light rail
  - Not as fast or far-reaching as commuter rail
  - More than 160 cities using rapid transit systems
  - 8,000 kilometres of track and 7,000 stations
  - 25 cities with systems under construction



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# Innovation For Future

- Rapid Transit Rail
  - Alternative to building extensive road transport system
  - Less area to use with higher capacity
  - Environmentally friendly
  - Lower cost



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# Innovation For Future

- High Occupancy Toll
  - Convert under-utilized HOV lanes to toll lanes
  - Create new highway toll infrastructure



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# Innovation For Future

- Hovercrafts



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# Innovation For Future

- Hovercrafts



- Mountbatten Class



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# Innovation

- Take a holistic cross functional approach to resolving a collection of Fort McMurray issues
  - Personal safety
  - Daily worksite commuting times
  - Green
  - Revitalizing city transportation
  - Positive global perception and recognition
  - Attracting and retaining top talent



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# Innovation

- Personal safety
  - Safer mode for employees daily commute
  - Reduction of lost time across workforce due to traffic disruptions
  - Less vehicles on the road means less incidents



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# Innovation

- Daily worksite commuting times
  - Single collision in morning commute can make thousands of people late for work
  - Round the clock service can enable flexible staggered shifts
  - Commute becomes a time to relax, to read, to work using mobile devices such as cell phones or Blackberries



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# Innovation

- Green benefits
  - Environment ready to support green initiative
  - GHG emissions reduced due to removal of hundreds of trucks from a 30-40 minute daily commute and hundreds of buses



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# Innovation

- Revitalizing city transportation
  - Enables new projects and expansions
    - Current highways are already full with existing activity levels
    - Future plans cannot become reality without shift in commuting strategy



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# Innovation

- Positive global perception and recognition
  - First mining town to have a mass commuting system
  - Global leader in people movement
  - Moving private vehicle traffic off the existing highway could add capacity for the use of moving goods and materials



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# Innovation

- Attracting and retaining top talent
  - Easier for member companies to attract and retain top talent



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# Innovation

- Perception
  - Working together
  - Reducing greenhouse gases
  - Making significant long term investments for the community



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# Innovation

- Social
  - Town station(s) become hub similar to Europe
    - Coffee and snack shops
    - News stands
    - Internet café
    - Day care
    - Meeting rooms



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