

18 months in Manitoba emergency management

A review of events from March 2005 to November 2006

Chuck Sanderson, Executive Director Manitoba Emergency Measures Organization

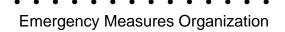




A busy year and a half

• At home

- •Floods
- •Forest fires
- •Development and evolution of municipal emergency plans
- •Legislative amendments
- •Business Continuity Planning
- •Pandemic Planning
- •Avian Influenza Planning





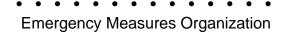
A busy year and a half

Across the country ...

- •Policy and consensus building
- •Security and counterterrorism activities
- •Development of a national system

Around the world ...

- Major natural disasters
- •Continuing security threats
- •The need to develop coordinated systems





Federal/Provincial/territorial Action Plan on Emergency Management – March 2005

Joint plan agreed to at Ministers meeting in January 2005
Addresses priorities established by the Council of the Federation
Working Groups formed in March, significant progress on DFA, public alerting, national coordination





Spring Flooding – April 2005

- Started with flooding on Gopher Creek in Virden – sandbagging, flooding of farm lands, no evacuations.
- More serious flooding developed due to run-off on south side of Riding Mountain.
- Major emergency operations in Strathclair, Park, Minto, Rossburn





Spring Flooding – April 2005

- Initial flooding was far less severe than expected – only significant evacuations in Western Manitoba were at Dakota Tipi First Nation
- Major flooding along Red • River and in Eastern Manitoba did not develop as expected thanks to favourable weather and good planning

Flood fears on the rise

Another major blizzard could cause disaster similar to 1997

By Mia Rabson

THE risk of floodang from the Red River this spring is arready Red River this spring is arready high, and one more mator blo-zard could cause a flood of close ba-1997 proportions, Manitoba's waterexperts warned yesterday Ait Warkentin, the senior river lore caster for Manitoba, said if Mother Nature is kind to us in the next sever al weeks, "we could still get away with

authof Winnipeg bear the U.S. border and out any serious flooding " But if we get the floodway miet. The another big dump of snow, everything Red River topped out at would have to be re-evaluated "16.1 feet in downtown "If we have a bhzzard 10 days from Winnipeg, and 52.8 teet in Letellier now, then all bets are off," said

Warkentin, "That's the kind of thing that would upset the apple cart." Warkentin said right now, the rask of having a repeat of the 1997 flood which caused more than \$450 million m damage is about three per cent. But higher than normal snowfall between w and spring melt could generate a flood just two or three feet shy of 1997. when the river topped out at 752.1 feet above sea level in downtown Winninge A flood of that level would cause extensive agricultural flooding between Emerson and Winnipeg. The water levels hit 792 5 feet in Emerson in 1997

If the weather is favourable, mean much more show

With average weather condition through the central the winter (food) ing is block to be a little higher than it was an 2001. That year, the retwo manual between Letellier

If we have a blizzard 10 days from now, then all bets are off All Waterson a e breakup, and spring

raintails will with with with ite carebalit The flood risk this year is higher

because the ground was saturated when it froze. As a result, when the snow melts, very little of the water will be absorbed into the ground. The spring runoff potential in south-eastern Manatoba, including Winnipeg

100 -

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and most of the Rold Scher Valley as In our available to incompany during an additional of the ROT Reset of the ROT Reset of the ROT Reset of the ROT Reset over the ROT Reset of t and the percent of mornal Warkenter and the one prevaled and

rest out the moment of that Sorth Dales. ta espect as the berearest high could of normal in 1997, snowthis through out the entire Red. Rever Valet was more than 200 per cent of THE PROPERTY.

Steve logping ever utive director of the provincial Water Stew ard ship branch, said Manutoha has spent more than \$150 million since 1997 raising raig dikes and building new ones, and raising the

west dike also known because they are all contributing fac- as the Z dike or the Brunkild dis-There are now 20 communities along the Red River with ring dives, compared to eight in 1997. And all of the are now capable of withstanding a 1997 flood plus two more fee! unities such as Grande Prante.

which had extensive faced damage in 1997, are now protected

(i) we had a 1997 flood again, 9 would not have nearly the same negact," topping and logging said it flooding to extensive

existinations will likely be accessary as ers had those town, with ring dike to an access will be cut off, ou estiva tructure and property damage . Chemmul

The province has also improved its ensergency preparedness for major thools, with better technical and main agement capabilities. A much improved flood forecast model has heep created that can now predict ester levels between Lake Traverse in South Dakota and Lake Winniper:

haprovements have also been made within Winnipeg to the Red River Floodway, and there is improved potestion for homes along King don Cret cent and Kingston Row

Dale Marciski, spokesman for Envi-ronment. Canada, said the bugged nowfalls typically come in late November, early December and March But he noted that so far in Jan uary there has been twice the normal amount of snow Since Jan. 1, 40 cen. timetres has fallen, compared to a not mail of 19 to 20 cm

C mia.rabson@freepress.mb.ca



911 Legislation - May 2005

- The Emergency 911 Public Safety Answering Point Act and regulation proclaimed
- Governs conditions and requirements for 911 call answering services
- Introduces new penalties for deliberate misuse of 911





Flooding continues - May 2005

- Wet ground conditions leads to slow drying, agricultural lands inaccessible in many areas
- Flash flood warning issued for Interlake due to threat created by high soil moisture
- Evacuation of approximately 13 homes in RM of Rockwood due to flooding

Slightly soggy, but happy, campers

Storms can't dampen long weekend spirits said Website, whose

P Univer Annues - Some - Croud State - Some - Croud State - Some - Croud State - Croud



revor Webster points out leak to (from left) Sherri, Nicholas and Keaton.





Flooding continues - May 2005





Amphibex icebreaker - May 2005

- Province rents Amphibex icebreakers to alleviate ice jam flooding on Red River in Winnipeg and Sugar Island area near Selkirk
- Leads to joint investment with municipalities to purchase to Amphibex icebreakers



Provided by: Normrock Industries



Tornado touchdown, severe storm and more flooding in Western Manitoba - June 2005

- Tornado touchdown in Glenwood, additional rain causes further flooding due to high soil moisture and subsequent run-off
- Agricultural land further inundated with water, additional damage to roads from run-off









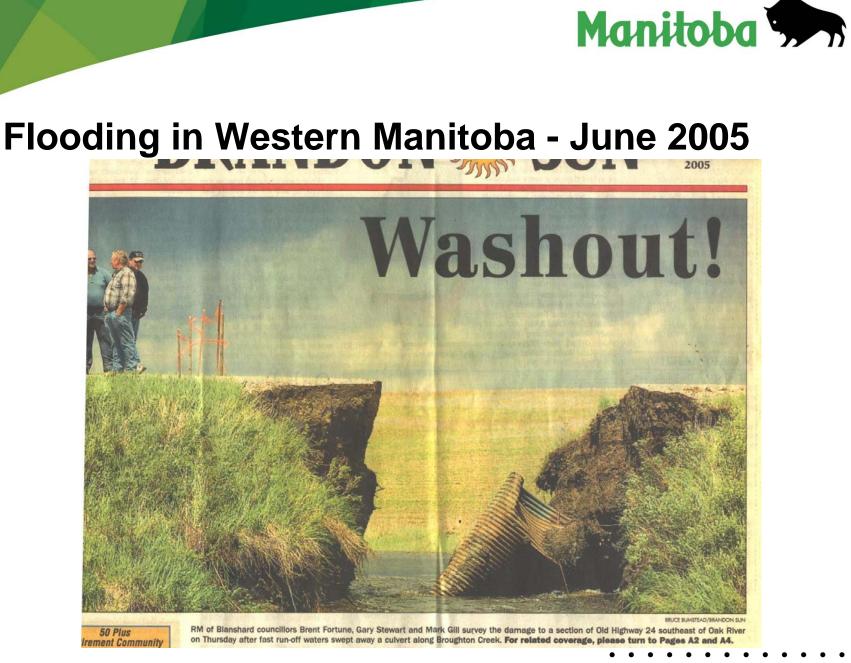


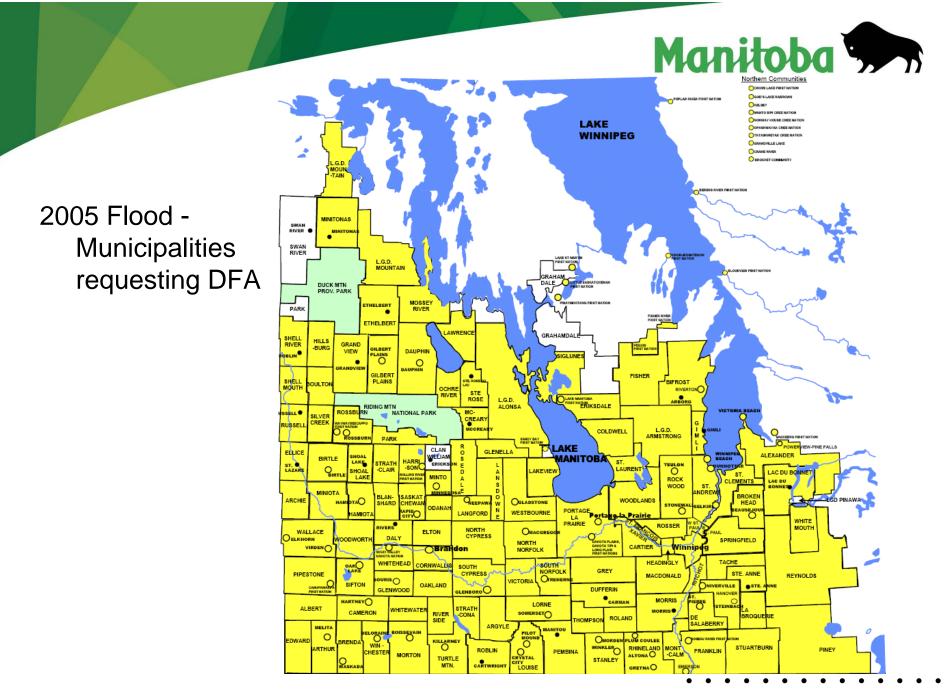












Emergency Measures Organization



Flooding in Manitoba - 2005

- •Received more than four times the normal amount of rainfall between 1 June and mid July.
- •Most widespread event
- •Volume of claims was second largest
- •Third largest for Disaster Financial Assistance payments.



Southern Manitoba windstorms – June 2005

- Large areas of bush land flattened by derecho (straight-line) windstorm.
- Windstorm damage reported in Piney, Gretna, Winnipeg, and Rhineland.





Split Lake high water levels - June 2005

- High water levels on Nelson River threaten ferry landing
- Emergency diking and ferry access constructed by Transportation and Government Services to maintain community access





Flood threat at The Pas - June 2005

- Rising levels on Saskatchewan River caused as flood waters from Alberta move west
- Emergency diking in RM of Kelsey at Rall's Island and in Town of The Pas
- Diking at Opaskwayak Cree Nation led by MANFF





Flood threat at The Pas - June 2005





Flood threat at The Pas - June 2005





WINNIPEG FREE PRESS, SUNDAY, JUNE 26, 2005

FROM THE FRONT

Dike-builders in a race against river

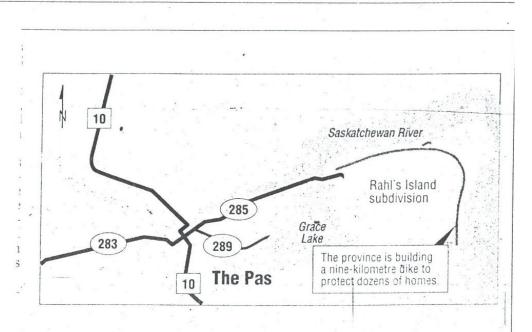
By Helen Fallding

THE province is scrambling to build a nine killer earth dike between about 60 homes in a subdivision east of The Pas and the rising Saskatchewan River.

According to yesterday's predictions from Manitoba Water Stewardship, the river could crest July 3 and create the biggest flood the region has faced in more than 40 years.

Kelsey Reeve Sandy Thwaites said local contractors, with extra equipment from Swan River and beyond, plan to have the dike finished by June 30.

"There was a little bit of panic at the start, but people are starting to realize we think we're getting ahead of it."





Flooding in Deloraine - June 2005

- High soil moisture leads to heavy run-off flooding in Deloraine
- Up to 80 homes affected
- EMO establishes Recovery Centre in community for 3 weeks







INSIDE Deloraine 1997 Ford F150, P. 4 4WD, extended cab \$8,495.00 Letters MAXWEL to the Editor Serving Southwest Manitoba Since 1887 P. 5 Sales & Service Saturday, July 16, 2005 VCP - 1317 Deloraine, MB • (204)747-2753 Volume 118 - No. 34 \$1/Copy (Inc. Taxes) New Business in **EMO** holds Deloraine info meeting P. 6 Deloraine's second flood within a week by Judy Wells More flood photos A public information meeting was held Thursday, P. 8 July 7 at the Elks Hall. The Emergency Measures Organization **Fenceline Forum** (EMO) headed up the meet-P. 11 ing and were supported by personnel from other government departments. National Rodeo The panel included Brian Franklin, mayor of Championships Deloraine: Paul Anderson, P. 14 Deputy Executive Director - Manitoba Emergency Measures Organization; **Rotational Grazing** IN LIKS B.P.D Perry Stonehouse, Regional Water Manager - Manitoba P. 16 It was hard to believe Water Stewardship; Arvyn but just one week after Gray, Regional Supervisor facing a devastating Manitoba Conservation; Dr. &17 flood, the Town of Elise Weiss, MD, CCFP, Deloraine received a MSc. Medical Officer of second flood on Friday.



Northern Forest Fires - June 2005

- Leads to evacuation of residents from Bird, on the Bay Line north of Gillam
- Concerns about fires near Thompson Airport do not lead to damage of facilities or evacuations





London bombings – July 2005

- 52 killed, over 700 hurt in coordinated attacks on London transit system
- Leads to heightened vigilance and security on Canadian commuter systems, evaluation of threats and vulnerabilities on Manitoba transportation system





Flooding near Morris - July 2005



Provided by: CTV



Heavy rain and flooding in Western Manitoba - July 2005

- High soil moisture leaves little capacity for earth to accept heavy rain, results in overland and sewer back-up flooding.
- Extensive flooding, especially in Brandon and area. Tornado touchdown south of Brandon





Brandon Flooding - July 2005



Provided by: CTV



Northern Manitoba flooding - August 2005

- Flooding crests on Churchill and Nelson River
- Emergency sandbagging required at Leaf Rapids
- Damage to commercial fisheries being evaluated





Flood warning for Churchill River

HE province has issued a flood warning for the communities along the Churchill River that are suffering through water levels higher than the 1997 autumn floods.

Manitoba Water Stewardship confirmed yesterday that record water levels are now expected from the Sandy Bay region of Saskatchewan through to Leaf Rapids.

Several communities along the Churchill River have been told to prepare for water levels two feet higher than crests in 1997, which may require emergency diking in some areas. Fishers have also been warned to take steps to protect their nets, boats and docks from the swollen rivers and strong currents.

Rivers in this area have been high all summer but rainfall last week produced additional runoff that prompted the Saskatchewan Water Authority to increase outflow from Reindeer Lake, which eventually drains into the Churchill River.

More rain is expected today and tomorrow, which could bring up to another 30 millimetres of rain into the Churchill watershed.

The Churchill River has already risen 0.87 feet at Pukatawagan and 0.5 feet at Granville Falls in the past five days. River levels rose nearly 2.5 feet at Sandy Bay in Saskatchewan, indicating that more water is coming down-river.

To date, there have been no evacuations in any of the communities along the Churchill system. The province is working closely with the Manitoba Association of Native Firefighters, which is the organization of first response in any disaster involving First Nations communities.



Hurricane Katrina - August 2005

 Extensive damage to New Orleans and southern states, criticism of emergency coordination and response efforts





Hurricane Katrina - August 2005

- Manitobans contribute through volunteering with CDART and MDS
- Manitoba USAR team on standby





Emergency Responders Week – September 2005

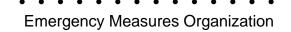
- Proclamation signed by Premier Doer
- Parade of Honour held in Steinbach
- Memorial ceremony held at
 International Peace Gardens





Lake Winnipeg diking - September 2005

- Water Stewardship identified flood risk due to prolonged high levels on south basin of Lake Winnipeg
- States of emergency in Gimli, Winnipeg Beach, Dunnottar, Bifrost, Riverton
- Provincial assistance provided by EMO, Water Stewardship, Transportation to build sandbag and earthen dikes





Lake Winnipeg diking - September 2005



Provided by: CTV



Second crest at The Pas - September 2005

- Additional water from west raises levels on Saskatchewan River at The Pas
- Diking in RM of Kelsey and Opaskwayak Cree Nation protects communities a second time





Lake Winnipeg storm - October 2005

- Severe storm pushes high lake levels inland, results in threat to developed areas
- Dike construction protects properties, no residential flooding or evacuations



INTERLAKE



Lake Winnipeg storm - October 2005





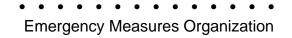
Lake Winnipeg storm - October 2005





Effects of Legislative Changes to Emergency Measures Act

- Emergency Coordination Teams
- Emergency Coordinators
- Regionalization / efficiencies
- Increased investment in local EOC / responder capacity

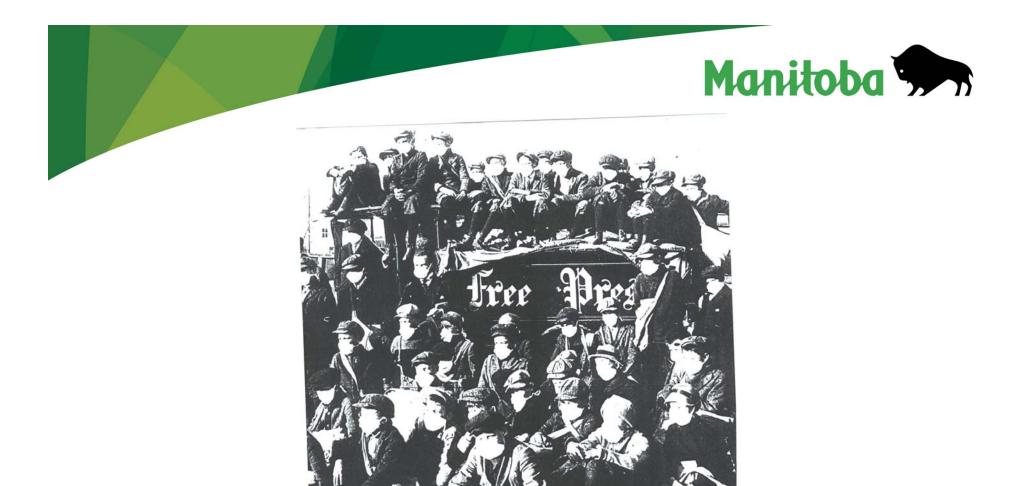




Pandemic planning - November 2005

- Growing concerns from WHO and public health agencies about preparedness for pandemic influenza
- Integrated approach launched to develop municipal, provincial and federal preparedness and coordination





Free Press newsboys don protective masks during the 1918 influenza epidemic, which killed 824 people in Winnipeg.

Pandemic!

Are we better prepared today than in 1918?

 In 2006, there is concern that a pandemic, possibly caused by bird flu, could be certify simulator to the pandemics of 1918, one of the deadlist of the pandemics of 1918, one of the deadlist of the pandemics of 1918, one of the deadlist of the pandemics of 1918, one of the deadlist of the pandemics of the pandemics of the deadlist of the pandemics of the pandemics of the deadlist of the pandemics of the pandemics of the deadlist of pt duty his plane pon eight times, he enemy planes and that glubalization will not only increase the

like those used during the SARS epidemic, have improved dramatically since 1918. Understandings of how disease are transmi-ted and how the chain of infection can be interrupted have also improved. As well, early warning systems for pondemic influence are in place in most countries, and many govern-ments have begin to develop pandemic flu-plans that can be activated in the event of a threat. Thus, from a medical and scientific perspective, we are much better equipped to handle a nonkonsis theorem.

world seem like our own backyard by provid-ing instant information from around the globe. In 1918 must people only had access to local news. The Manitoba Pree Press published almost daily reports on inforctions and deaths in the province, with little mention of the glob-al innoved.

al impact. Today the media reaches more people. faster, that never before. During a pandemic this could provide essential information, such as closures of public phases to a schemet + 5



Blizzard in Southern Manitoba – November 2005

- Major snow storm leads to much of Winnipeg slowing down or shutting down, extensive highway closures in southern Manitoba
- Could have been a major emergency, was avoided by good planning and effective response.





Further flooding concerns at The Pas -November 2005

- Water Stewardship raises concerns over high water levels and weather conditions that could contribute to frazil ice
- Diking protects flooding of developed areas





Lakes and river frozen, flood risk ends -December 2005

- Finally, the threat of high water levels ends when major lakes and rivers develop a layer of ice
- Concerns remain about the possibility of spring flooding once water is released by warm weather





Dauphin River flooding - December 2005

- Dauphin River First Nation evacuated when flooding removes road access
- Evacuation of approximately 60 people managed by MANFF
- Transportation and Government Services assists with road work

DAUPHIN RIVER

Flooding cuts off access to outside 60 evacuated before road closed

By Matthew Coutts

River has stranded about 40 residents in the community of Dauphin River First Nation, 240 kilometres northwest of Winnipeg.

 High waters flooded Provincial Road \$13, the First Nation's only road access, Tuesday evening, cutting off the community lifeline.

About 60 residents were evacuated just before the road went out of service on Tuesday, band administrator Loraine Stagg said in a telephone interview yesterday.

"The water was moving rapidly because of the mild temperatures. The ice was turning to slush, we knew it was coming," said Stagg.

Children, elders and those with medical conditions were sent to stay with nearby family, or to area communities, such as Ashern.

Stagg said the community doesn't seem to be in any direct danger; the flooding is about 27 kilometres from town, and not coming closer.

But it has cut the community off from necessary goods brought in from outside. Stagg said getting food and gas into the community is a top priority. "The men are making a bush trail for the Ski-Doos to bring in essentials," she said.

The Manitoba Association of Native Firefighters was among the first groups to assist the community, said representative Curtis Smith.

"We're working with the chief and council, and monitoring the situation," he said.

Smith said the association was ready to airlift food into the community before residents cut the snowmobile trail, allowing access to nearby Gypsumville.

Smith said the group will keep an eye on the situation. "We've got resources in place."

Åaron Anderson was evacuated with his three children Tuesday night. He was given a room at the Ashern Motor Hotel. His family is fine, but he said they are worried about their home.

"The kids are kind of restless. Everyone's wondering what's going to happen," he said. "Everyone hopes they can get home for Christmas."

Stagg said she's thankful for the help neighbouring towns and communities have offered the Dauphin River First Nation.

The flooding will remain for several weeks, the province said.









A flooded yard near St. Agathe is seen from the air in July. Flooding was more widespread this year than in 1997.

Mother Nature just didn't relent in '05

TAMARA KING Staff Reporter

tking@wpgsun.com Rather than a bang, 2005 came in with a blast.

A big blizzard, the night before New Year's Eve. And Mother Nature didn't

relent for the rest of the year.

Winter

Winnipeg was swamped in snow New Year's Eve, with 26 cm of snow dropping on the city. Slick surfaces and blowing snow Slick surfaces and blowing show prompted the closures of many main Manitoba highways, but even caused provincial officials to pair snowplows off the roads. Less than 24 hours after

Winnipeg dug out from the first mess, Old Man Winter paid another nasty visit on Jan. 2. This time, only 10 cm of snow dumped on Winnipeg but made for tough sledding, so to speak, on the cleanup front. The city affectionately known as

"Winterpeg" cracked another weather record — this time for the most snowfall since autumn. By Jan. 22, the city had already seen 75 cm of snow. The average between November and January is 64 cm.

flood in Manitoba. We were so waterlogged, flooding was more widespread in 2005 than "the Flood of the Century" in 1997, according to provincial govern-ment statistics. And the water kept coming

Parts of Winnipeg looked like a tornado had blown through after the city was walloped by a massive rainstorm in July. First, the city's south end

received up to 100 mm of rain in less than an hour late July 16. which was closely followed by a series of violent thunderstorms with winds up to 120 km/h early the next morning.

Broken trees, bits of branches, downed power lines and flooded basements were left behind in a path of destruction that took the city weeks to clean up. Then, on the day where workers

are supposed to be given a day of rest, many Manitobans spent part of Labour Day cleaning up from a vicious storm that toppled air-planes and sheds, uprooted trees and left many without electricity for hours. The Selkirk area was the hardest

hit by the fierce storm that saw raging wind, rain and hail up to one inch in diameter. resolved.

The year went down in the books as the year of the spring

to a 3/4-ton block of concrete "I live right next door and when I saw the wind coming up that much I knew they'd be in trouble, even tied down," said Bob Polinuk, owner of Riverside Aircraft and Selkirk Air, adding the five planes sustained "substantial damage

Fall Winter weather snuck up on southern Manitoba with a storm

Nov. 14 that caught many by sur prise, including the City of Winnipeg. Because of a warmer-than usual fall, many Manitobans were lulled into a false sense of security

about the weather - and many front-end loaders that would be used to clear roads were tied up on construction sites. With a shortage of machinery. the city's clean-up was slower

than usual. Mayor Sam Katz promised a better response the next time Winnipeg is pounded with snow, but whether that means buying more equipment (the city con-tracts 80% of its snow clearing machinery) or shelling out extra

cash to have contractors on standby as of Nov. 1, hasn't been

Emergencies and Emergency Management were top news stories in 2005



Municipal emergency plans - January 2006

- 197 of 199 municipalities have completed emergency plans approved by Manitoba EMO as per *The Emergency Measures Act*
- Discussions on-going with AMM to incorporate lessons learned and best practices into evolving requirements





Government Business Continuity Planning – January 2006

- Major initiative to develop BCP for all functional areas in all government departments
- Supported by Deputy Ministers Committee on Emergency Management and Public Safety
- Re-enforced through recent legislative amendments





Spring flood planning - January 2006

- Provincial government departments begin meeting to evaluate risk, begin identifying resource needs
- Communication with municipalities was made as information was provided by Water Stewardship





Public alerting applications - March 2006

- CRTC holds hearings to consider proposals for emergency public alerting
- Applications submitted by Bell ExpressVu, CBC, and Pelmorex
- Manitoba was supportive, made submissions calling for coordinated system to allow for a single point of entry when issuing messages





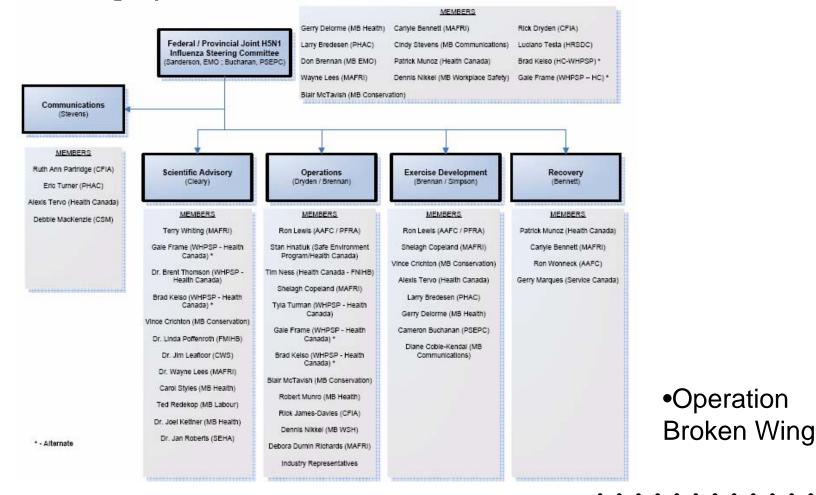
JEPP funding – April 2006

 Federal and provincial funding through the JEPP program approved for 11 communities/organizations worth \$150,000





Asian H₅N₁ Avian Influenza Planning – May 2006

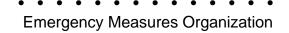




Spring Flood in Red River Valley - May 2006

- Flooding was comparable to 1996, similar damages avoided by planning and flood mitigation
- Major road closure, including PTH 75. Only one evacuation
- Provinces announces \$12 million in Disaster Financial Assistance, EMO makes applications available on-line
- Visit from Prime Minister







Spring Flood in Red River Valley - May 2006

Prime Minister visit





Assiniboine River flooding - May 2006

- Extensive flooding of agricultural lands, some sandbagging in Morton, Whitewater, Carmen, Westbourne
- Most areas included within scope of DFA programs





Western Manitoba flooding - May 2006

- Run-of from Duck and Porcupine Mountains results in flood threat and sandbagging in Swan River, Mountain, Wuskwi Sipi FN
- High levels on Red Deer Lake lead to flooding of three homes and evacuation of 40 people





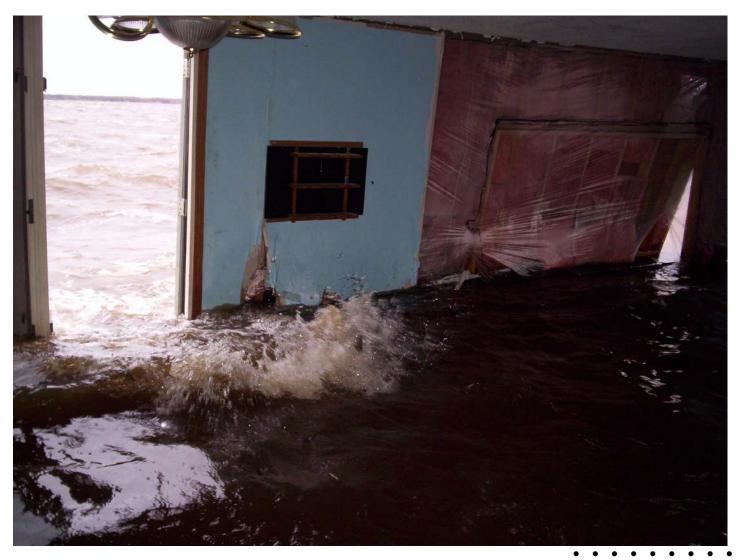
Red Deer Lake Flooding – May 2006



Provided by: CTV









Interlake Flooding - May 2006

- Heavy rain event leads to flooding on Fisher River
- Sewer back-up flooding reported at Peguis First Nation, response led by MANFF
- RM of Fisher reports flooding in about 14 homes and agricultural lands, no evacuations





Northern Manitoba flooding - May 2006

- Initial concerns about flooding potential from Carrot River and Saskatchewan River did not materialise
- Amphibex icebreaker was deployed to alleviate ice jamming at Rall's Island
- Many dikes at Opaskwayak Cree Nation were still in place from 2005, provided adequate flood protection





Bomb suspects arrested in Ontario – May 2006

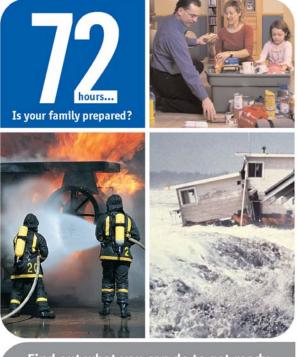
- Security concerns were evaluated on an integrated basis for Manitoba
- Sale of ammonium nitrate fertilizer in Manitoba was restricted by *The Security Management Act* in 2001, no reports of sales in Manitoba





National Emergency Preparedness Week − May 2006

- Annual even organized between federal and provincial/territorial governments
- Draws attention to emergency preparedness issues at the individual level by focusing on responsibilities and current issues



Find out what you can do to get ready Emergency Preparedness Week May 7-13, 2006 www.epweek.ca





Legislative amendments - June 2006

- Amendments to *The Emergency Measures Act* clarify responsibilities, requirements for provincial departments to have BCPs, increases penalty for refusing an evacuation order
- Emergency Prevention Orders created, first jurisdiction in North America with powers specifically for mitigation





Forest Fires - July 2006

- Initial concerns about northern areas subsided, extremely dry conditions led to movement of fire resources to southern Manitoba
- Dry conditions led to restrictions on outdoor fires and hiking in mid July





Mumbai bombings - July 2006

- Coordinated attacks on Mumbai transit system; 200 killed and at least 700 injured
- Responsibility has not been taken for the attacks. Has heightened national tensions in the Indian sub-continent





West Nile virus - August 2006

- Five cases reported in Manitoba, located in Central and Interlake regions
- Chief Medical Officer of Health leading provincial effort to monitor, mitigate and respond to public health emergencies

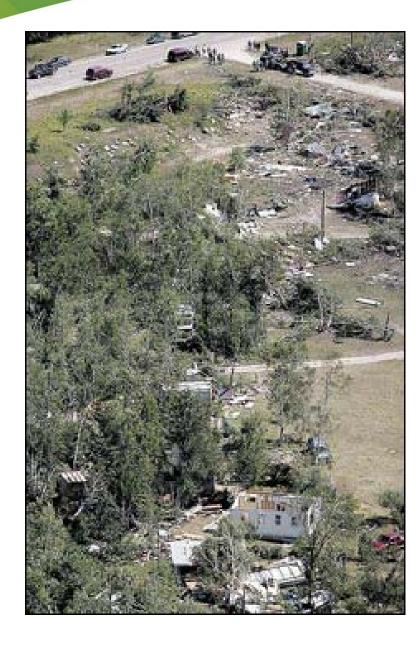




- Tornado touchdowns near Gull Lake, Lac du Bonnet and Kendall Point
- One fatality, approximately 20 injuries ranging from serious to minor
- Extensive property damage
- Response from St. Clements, Alexander, EMO, OFC, Conservation, NEHA





























Averted Terrorist Plot - August 2006

- Terrorist plot to simultaneously down aircraft heading to the U.S. using explosives smuggled in hand luggage was uncovered
- Authorities immediately banned all passengers from carrying any liquid in their carry-ons





Emergency Responders Week – September 2006

 Emergency Responders Week events held in conjunction with the annual September 11, 2001 ceremonies at the International Peace Gardens





Windstorm and flooding – October 2006

- Strong northwest winds created a one-day event with flooding at Meadow Portage, Port Nelson (Churchill), Gimli/Winnipeg Beach, Sagkeeng
- Power outage in Eastern Manitoba – Lac du Bonnet to Hadashville





Moving forward ...

- Will require coordination, cooperation, and a recognition of our dependence on our peers at all levels and by all individuals. Need to provide leadership by cooperating.
- Isolated planning and poor communication is as serious a vulnerability as any natural conditions.
- The public doesn't make a distinction between the levels of government and different agencies involved with emergency management. Neither do disasters.





