

# FACT SHEET - 2009 SPRING HIGHWAY CONDITIONS

### Why are there so many potholes and surface breaks?

- Potholes and surface breaks are a fact of life every spring on city streets, municipal roads and highways.
- Potholes and surface break-ups on highways are anticipated to be near normal amounts for an average year.
- Potholes are formed from the expansion and contraction of water that has entered into the subsurface of the road through cracks in the pavement.
- When water freezes it expands. This causes the pavement to expand, bend or crack and weakens the road. When the ice melts, the pavement contracts leaving voids in the subsurface where water can get in again.
- If the water freezes and thaws over and over, the road can become very weak.
- Saskatchewan Watershed Authority is predicting below normal or average spring runoff potential for most of the province. There is a high runoff potential for southeast Saskatchewan and in areas near Saskatoon and North Battleford. Highways in these areas will be closely monitored as temperatures warm.

### Which highways will be most impacted?

- Some paved highways are more vulnerable in the spring than others.
  - o Older and cracked roads will allow more water into the subgrade.
  - o Roads with lower grades will stay saturated longer until water has dried up and the road has had a chance to dry.
- Thin Membrane Surface (TMS) roads can be very sensitive to break up in the spring.
  - o These highways do not have the same structural strength as paved highways.
  - o The performance of these roads is very dependant on the way the spring thaw occurs. If there are a lot of freeze thaw cycles, more surface breaks are expected.
  - o If large volumes of water adjacent to the road bed take a long time to recede, more surface breaks are expected.
  - o If loaded commercial trucks travel over TMS roads that have a saturated subgrade, more surface breaks are expected.
  - o The more trucks that travel on a road when the subsurface is in a weakened state, the more damage will occur to the road.

#### What is being done to fix them?

The Ministry has a strategy in place to deal with potential impacts to the highway system:

- Data is used from the Saskatchewan Watershed Authority to predict and identify at-risk areas.
- An aggressive surveillance program enables crews to quickly provide warning to motorists and provide short-term repairs. This includes using the Highway Hotline as a centralized point of contact for the general public and municipalities to report trouble spots.
- Priority is placed on clearing culverts, bridges and other drainage structures so that they can handle runoff at their design capacity.
- Seasonal staff may be called back early where necessary.

## How soon will repairs be made?

- When surface breaks occur in the spring, highway crews flag the hazard and do an assessment of what kind of repair is needed.
- The crew may apply gravel material or blade on asphalt patching material as a temporary repair.
- Small potholes will be filled with patching material.
- These types of repairs may only temporarily fix the problem.
- Crews MUST wait until the road dries before attempting long-term repairs.
- Highways that require large permanent repairs will be scheduled into the summer work plan for the crew.
- This spring, the priority for crews will be to clear culverts, maintain drainage runs and direct traffic through or around flood zones.
- As soon as critical flooding and high moisture areas are addressed and roadbeds dry out, permanent repairs on other highways will begin.
- Crews prioritize their work by highway classification.
- Repairs on the most heavily-travelled highways will be scheduled first.

For the latest spring road conditions, contact the Highway Hotline:



www.highways.gov.sk.ca

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