

# Metals in Soil – Residential Sampling

The soil sampling program is meant to provide an assessment of metals in soil for residential areas in Flin Flon, Creighton and Channing

The information will be used in the community based risk assessment

Sampling program consists of:

- 1) Front and back yard soil sampling of 200 homes
- 2) If garden is present, the sample will be taken from the garden instead of the back yard grass
- 3) If sand box is present it will be sampled
- 4) Samples will be taken from various areas in town and surrounding areas

The goal is to provide a database of metals in soil.

# Soil Sampling Protocol

- Metals are bound tightly in neutral and calcareous soils
- Mobility is limited
- Select locations will be sampled to depth to look at Metals vs Depth
- Soil sampling will duplicate the depth sampled by Manitoba Conservation in 2006 (0 – 2.5 cm)
- Results will be compared to CCME guidelines as well as background soil concentrations in Manitoba (Ag Canada)

# Timing for the Soil Sampling Program

- Freeze up is close and soil sampling in frozen ground does not provide reliable sampling depths
- We must start and finish our program this week
- We need your help!

# Indoor Dust Sampling Program

- Ultimately airborne particulates settle out and become part of the settled dust on furniture, carpets and floors
- Sampling of approximately 50 homes will occur after the soil sampling program
- Fabric surfaces, carpet and hard surface samples are to be sampled

# Quality Assurance and Quality Control for Indoor Dust Sampling

- Fabric surfaces sampling will be based on US EPA Office of Pollution Prevention & Toxics (US EPA 2000a; 2000b) and the American Society of testing Material (ASTM, 1999).
- Hard surface sampling will be based on US Department of Housing & Urban Development procedures for wipe sampling for lead in houses (US-HUD, 1990; 1995) plus supporting protocols (ASTM 2002a; 2002b; NIOSH 1996)
- We will discuss with this committee our requirements at a future date