

## Saline Soils of the Agricultural Area of Alberta

### Description

This map displays the occurrence of saline soils in the agricultural region of Alberta. A saline soil is a non-alkali (pH less than 8.5 and exchangeable-sodium less than 15%) soil containing soluble salts in great enough quantities that they interfere with the growth of most crop plants.

For this map, saline soils were defined as having a soil horizon with an electrical conductivity (EC) of greater than or equal to 4.0 mS/cm within 30 cm of the surface. This is the level of salinity at which crop growth is significantly reduced. The areal extent of saline soils within each Agricultural Region of Alberta Soil Inventory Database (AGRASID) soil landscape polygon was represented as a percentage of the total area using the following classes: greater than 30, 10 to 30 and less than 10.

### Data sources

The data for this map was derived from AGRASID 3.0. AGRASID is a digital database describing the spatial distribution of soils and associated landscapes within the agricultural region of Alberta.

### Potential uses

Knowledge concerning the distribution of saline soils in the province can be useful in assisting municipalities and producers in targeting salinity control and cost effective management activities.

### Limitations

The map gives a broad view of the distribution of soil salinity in the province based on the areal extent of each class. The extent of saline soils will vary within each soil landscape polygon.

### Further information

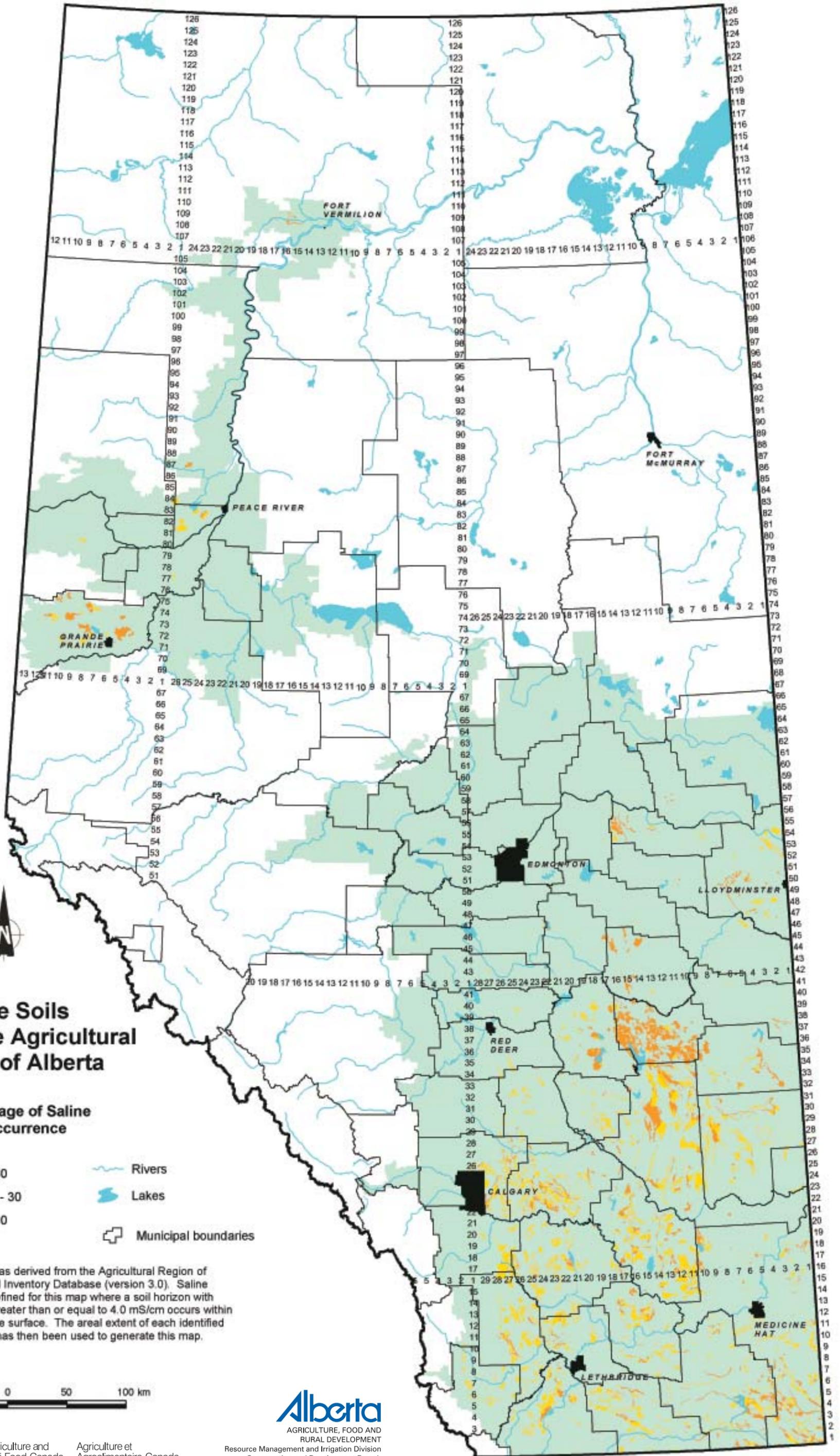
Alberta Agriculture, Food and Rural Development (AAFRD) provides information about saline soils.

- From the AAFRD website, under Quick Links on the right side follow: *Publications & More*, then *Soils and Water Publications* to access a number of saline soil publications.
- From the AAFRD website, use the topic bar on the left and follow: *Soil/Water/Air*, *Soil Fertility* and *Salinity* to find information about municipal salinity mapping projects completed in the province. Or, contact Conservation and Development Branch, AAFRD, for further information. Toll free call 310-0000, then dial (780) 422-4385.

[www.agric.gov.ab.ca](http://www.agric.gov.ab.ca)

AGRASID provides extensive soil information and is available to download from the Alberta Soil Information Centre at the AAFRD website. [www.agric.gov.ab.ca/asic](http://www.agric.gov.ab.ca/asic)

Scroll down to view map



## Saline Soils of the Agricultural Area of Alberta

### Percentage of Saline Soils Occurrence

- > 30
- 10 - 30
- < 10
- Rivers
- Lakes
- Municipal boundaries

The data was derived from the Agricultural Region of Alberta Soil Inventory Database (version 3.0). Saline soils are defined for this map where a soil horizon with an EC of greater than or equal to 4.0 mS/cm occurs within 30 cm of the surface. The areal extent of each identified saline soil has then been used to generate this map.

