Subsoil Salinity Tool
Version 3.0

Subsoil Salinity Tool

The Subsoil Salinity Tool (SST) is a software program for developing Tier 2 soil remediation guidelines for chloride-based salt contamination below the root zone. The SST will guide the user to enter a minimum dataset, including site location and soil and groundwater information. Using this information, the software will provide Tier 2 remediation guidelines for soil below the root zone. Soil within the root zone must be remediated to meet salinity guidelines in the *Alberta Tier 1 Soil and Groundwater Remediation Guidelines*.

Tier 2 remediation guidelines provided by the SST will be protective of groundwater uses (drinking water, irrigation and livestock watering), surface water (aquatic life) and the root zone. Users can explore various remediation scenarios to find the optimum extent of remediation for the protection of receptors from unacceptable risks. A user manual accompanies the SST software to guide the user in determining appropriate data inputs gathered from relevant Phase 2 environmental site assessments.

The SST software generates a report summarizing inputs and Tier 2 guidelines for the site. This report must be attached to the reclamation certificate application form. A Phase 2 environmental site assessment report or similar summary report that explains how the software inputs were chosen must accompany the SST-generated report. For a site to be eligible for reclamation or remediation certification, confirmatory testing results must show that the site meets Tier 2 guidelines developed with the SST. In some cases, a site may meet the Tier 2 guidelines without further remediation; in other cases remediation will be necessary, followed by confirmatory testing.

Versions

Version 3.0 of the Subsoil Salinity Tool will come into effect upon release. Alberta Environment and Parks and the Alberta Energy Regulator will continue to accept applications for reclamation certificates and remediation certificates based on previous SST versions provided the laboratory analytical data report(s) for the confirmatory samples is dated on or before:

Version 2.5.2 – November 30, 2014
Version 2.5.3 – March 1, 2021

Training

All users of the SST wishing to develop Tier 2 guidelines for a reclamation certificate application must successfully complete a multi-day training course provided by Equilibrium Environmental Inc including a comprehensive 4-hour exam with an 80% pass mark. The course is challenging and pre-course study and software use is strongly recommended. Practitioners who have successfully completed the training course for previous versions of the SST are not required to repeat the training, but are strongly encouraged to take an update course to become familiar with the new features of the SST. To register for courses, please contact Equilibrium Environmental directly at:

Equilibrium Environmental
CALGARY, Alberta
Phone: (403) 286-9374

email: SSTInfo@eqm.ca

Alberta

System Requirements

Windows 10 (64-bit) is required to run the SST software. Although not officially supported, the software should also run on 64-bit versions of Windows 7 or 8. A currently supported version of MS Office/Excel is also required.

Software Support

Questions related to the software operation, such as hardware compatibility and error reports, should be directed to the software developers:

Equilibrium Environmental Inc.
CALGARY, Alberta
Phone: (403) 286-9374

e-mail: SSTHelp@eqm.ca

Contact

Questions related to the use of the SST for managing salt contamination, as well as comments and suggestions for improvement of the SST program may be directed to:

land.management@gov.ab.ca

Web site:
https://www.alberta.ca/environment-and-parks.aspx

Classification: Public