Where to Get a Soil Survey

Soil surveys are published on-line at http://websoilsurvey.nrcs.usda.gov.

Soil surveys are also available in print or electronic form from:

USDA Natural Resource Conservation Service
800 Evergreen Avenue, Suite 100
Palmer, AK 99645
(907) 761-7760

Or from these field offices:

Anchorage
510 L St., Ste 270
Anchorage, AK 99501
907-271-2424

Bethel
311 Willow St, Bldg 3
PO Box 1869
Bethel, AK 99559
907-543-7155

Copper Center
HC 60 Box 52
Mile 93.3 Richardson Hwy
Copper Center, AK 99573
907-822-4484

Delta Junction
1420.5 Alaska Hwy,
Jarvis Office Ctr
PO Box 547
Delta Junction, AK 99737
907-895-4241

Dillingham
PO Box 1110
Dillingham, AK 99576
907-842-3240

Fairbanks
590 University Ave, Ste B
Fairbanks, AK 99709-3641
907-479-3159

Homer
4014 Lake St, Ste 201
PO Box 400
Homer, AK 99603-0400
907-235-8177

Juneau
Senate Bldg
175 South Franklin St,
Ste 424
Juneau, AK 99801-1304
907-586-7220

Kenai
110 Trading Bay, Ste 160
PO Box 800
Kenai, AK 99611
907-283-8732

Kodiak
518 Marine Way, Ste 206
Kodiak, AK 99615
907-486-5598

Mat-Su
1700 East Bogard Rd, Ste 203
Wasilla, AK 99654
907-373-6492

Nome
240 Front St, Ste 107A
PO Box 1009
Nome, AK 99762-1009
907-443-6096

By gathering all information possible, you can buy land or design a home that will meet your expectations. Soil survey information, along with assistance from NRCS staff, will guide you through your land investigation and give you ideas of what to look for or if other professionals should be consulted.

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NRCS Natural Resources Conservation Service
Alaska

United States Department of Agriculture

Natural Resources Conservation Service

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Know Your Soil Before You Buy Or Build!

The soil under your dream parcel will help determine how well that land can serve your needs for years to come.

Soil-Related Problems in Alaska

Unstable Soils can cause a structure's foundation to crack or fail as demonstrated by the photo on the right. Silty soils are susceptible to frost heave and organic soils settle over time. Permafrost or massive underground ice is a serious problem in some parts of Alaska. A soil survey will help identify if any of these or other problem soil features are present on your land.

High Water Tables can cause basement flooding, septic system failure, landscaping damage, or make the land subject to wetland regulations. Many water tables in Alaska rise and fall seasonally in response to snowmelt or rainfall. Soil surveys identify soils that have seasonal high water tables and provide estimates of the average depth to the water table.

Location in a Floodplain can result in flooding or severe water erosion. Because flood plains are generally level, they may seem desirable for home sites. Flooding events may occur years apart. Many people whose homes have been damaged by floods were not aware that their homes were built on flood plains. A soil survey will help identify if the site is located in an active floodplain.

Some Sites are Susceptible to Erosion. Not only do bare, eroded areas detract from a home's appearance and contribute to stream sediment, but erosion can eventually undermine the foundation of a house and form deep gullies in yards and fields.

Glacial rivers in Alaska can change channels from year to year and erode lands previously unaffected.

Steep or unstable slopes can cause erosion problems. Poorly designed driveways and hillside cuts can collapse or wash out. A soil survey will help identify both the slope of the land and the resistance of a particular soil to erosion.

Is The Soil Suitable For A Septic Tank Absorption Field?

Conventional septic systems function best in relatively dry, well drained soils that have the capacity to allow sewage effluent to move through the soil. If the effluent cannot move through the soil easily, it may rise to the ground surface and present a health hazard. Slow movement can be caused by silty or clayey soils, or by bedrock near the ground surface.

If effluent moves to quickly through the soil, as can occur in very gravelly or sandy soils, it may rapidly descend to the water table before it is effectively rendered harmless by soil organisms.

If the soil has a seasonal high water table the system may work in dry weather and then fail when wet. If the soil has permafrost the soil may not drain properly or the additional water may melt the permafrost, causing uneven settling.

All of these soil properties are identified in a soil survey.

Use of Soil Surveys

There are numerous soil types in Alaska, each with unique physical and chemical properties. Soil scientists study the interaction between soil and landscape properties such as texture, chemistry, flood hazard, wetness, erodability, permeability and permafrost to predict how a soil will respond to specific land uses.

Using a soil survey, soil scientists can help you determine the suitability of your land for uses such as home sites, septic tank absorption fields, and lawn and gardens.

How Can a Soil Survey Help?

Homebuyers who are properly informed of potential hazards can plan structural designs to overcome most limitations imposed by certain soils.

For example, subsurface drains around foundations can reduce soil wetness. Special septic systems can be installed for different soil types.

Structural problems due to frost heave can be reduced by a foundation designed to withstand the extra stress. Structural problems that result from melting permafrost or ice can be reduced with a foundation that preserves the permafrost or ice.