

Natural Resources Conservation Service

Soil and Plant Science Division

East Central Glaciated Soil Survey Region 11

Atlantic, Iowa, MLRA Soil Survey Office

Evaluating Sites for Emergency Animal Mortality Burial

Purpose

NRCS offers financial and technical assistance for Emergency Animal Mortality Management, a means for the management of animal carcasses from catastrophic mortality events. The COVID-19 pandemic qualifies as a natural disaster. Reduced demand for meat, due in part to restaurant closures, has contributed to an excess of livestock disposal. Burial in pits is a common method. The burial method involves the disposal of large volumes of dead animals by placing the carcasses in successive layers in an excavated pit. Typically, the carcasses are spread, compacted, and covered daily with a thin layer of soil excavated from the pit. When the pit is full and has reached grade level, a final cover of soil material, at least 2 feet thick, is placed over the burial pit.

Other means of carcass disposal include composting, forced air incineration, landfilling, and rendering. Most often, Emergency Animal Mortality Management is requested when a natural disaster occurs and results in producers having to dispose of excess animals.

Background Information

The soil survey staff in Atlantic, Iowa, conducted an onsite soil investigation to determine site suitability for animal mortality burial sites.

Soil interpretations, such as the suitability for animal mortality burial, are available from [Web Soil Survey](#) as a preliminary planning tool. This is not a substitute for an onsite inspection; however, it can be a useful method for assisting with site selection. To view this rating, highlight your Area of Interest (AOI), select Soil Data Explorer at the top (fig. 1), then select Suitabilities and Limitations for Use, followed by Suitabilities and Limitations Ratings.

Under Disaster Recovery Planning, choose Catastrophic Event, Large Animal Mortality, Burial. Click the View Rating button and the ratings will appear over your AOI (fig. 2).

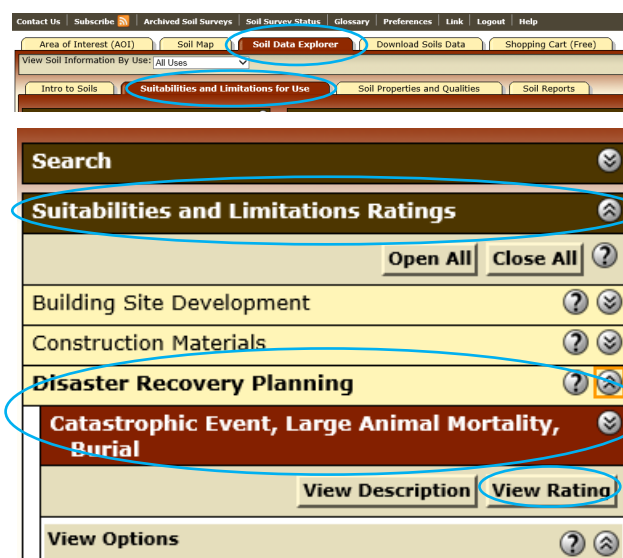


Figure 1.—Screenshot of the Web Soil Survey menu.



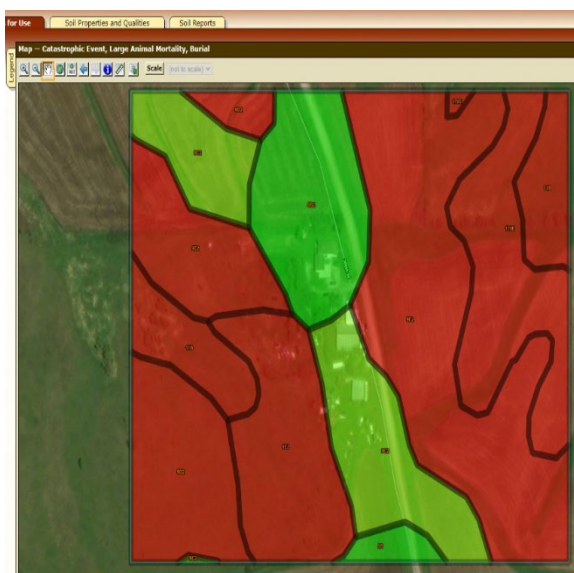


Figure 2.—An example of an Animal Mortality Burial Rating Map from Web Soil Survey (WSS). The red areas in the AOI of this map represent areas on the land that WSS has rated as “very severely limited” in terms of limitations for an Emergency Animal Mortality Burial site. The green areas represent areas that are “slightly limited” or “not limited.”

Soil interpretations do not provide criteria for pit design or construction. While some general recommendations can be made, an onsite evaluation is required before the final site is selected. Improper site selection, design, or installation may cause contamination of groundwater, seepage, and contamination of stream systems from surface drainage or floodwater. Potential contamination may be reduced or eliminated by installing systems designed to overcome or reduce the effects of the limiting soil property.

Key Outcomes

The Atlantic soil survey staff investigated three sites for site suitability for a burial pit. The soils staff sampled the sites using a hand probe. All three sites were determined to be suitable, as they had no limiting properties.

Conclusions

Emergency Animal Mortality Management is a valuable service that producers can request when catastrophic events occur, such as the COVID-19 pandemic. The COVID-19 pandemic has been very hard on producers, and in some cases, has put their livelihood at risk. Continued funding for and completion of Emergency Animal Mortality Management requests may help producers find some financial and emotional relief.