



ENVIRONMENTAL FACT SHEET

11-026

September 2011

2011 FLOOD SEDIMENT CLEAN-UP

GUIDANCE RELATED TO FLOOD DEPOSITED SEDIMENT & DEBRIS CLEAN-UP

The Nebraska Department of Environmental Quality (NDEQ) has specific statutory responsibilities relating to the disposal of wastewaters and solid waste. As part of the response to the 2011 floods, the NDEQ has prepared this fact sheet to assist individuals and communities with proper practices for recovery from flood damage. The NDEQ is seeking to clarify requirements related to the flood recovery effort and sediment and debris accumulations resulting from the 2011 floods while ensuring protection of human health and the environment.

This guidance relates to recovery efforts in the counties where a flood declaration has been declared in 2011. Failure to follow these steps could jeopardize assistance that may be provided by federal or state programs related to flooding assistance. This fact sheet provides procedures and reminders when considering clean-up and disposal of flood deposited sediment and debris:

- 1. Take reasonable measures to minimize pollutant discharges to surface waters** – During recovery and clean-up efforts, reasonable measures should be employed to minimize the discharge of sediments and debris from clean-up operations to surface waters and the surrounding environment.
- 2. Allow sediment and debris to dry and be exposed to sunlight** – Sediments and debris resulting from flood waters are likely to contain microbial contaminants from sewage, animal wastes and other sources. The majority of these populations will be inactivated within several days if exposed to UV radiation from the sun. When possible, allow accumulated sediment and debris to naturally dewater and receive sunlight after flood waters recede. These materials will not be rendered completely harmless, though microbial populations should be reduced.
- 3. Identify potentially toxic or hazardous materials** – Flood waters may transport more than microbial contaminants. Barrels, drums and other containers may be washed into the flood waters and deposited miles from the original location. These containers may contain potentially hazardous materials such as pesticides, petroleum products, and other agricultural or industrial chemicals. Determine whether these suspect materials are within or adjacent to the area of concern. Toxic or hazardous material residues may also be deposited by floodwaters from burst containers and other sources. If toxic or hazardous substances are encountered or suspected, contact NDEQ at (402) 471-2186, toll free at 1-877-253-2603, or after hours at (402) 471-4545 to discuss proper handling and disposal procedures.
- 4. Remove gross contamination and properly dispose** – Accumulated debris, trash or other waste should be separated from sediments and disposed of properly. These materials are regulated as a solid waste and will need to be beneficially reused or disposed of in a landfill. (*Additional guidance on proper disposal of solid waste is available from the Departments website.*) Gross

Produced by: Nebraska Department of Environmental Quality, P.O. Box 98922, Lincoln, NE 68509-8922; phone (402) 471-2186. To view this, and other information related to our agency, visit our web site at www.deq.state.ne.us. This material is intended for guidance purposes only. It is not meant to substitute for the regulations found elsewhere in State Title or other applicable Nebraska environmental regulations. The reader must assume responsibility for adapting this information to local conditions. This document should be used as a guide and is not intended to replace the advice and guidance of experienced professionals and public health officials who are able to view and assess the needs of the particular situation.

sediment accumulations should be removed and stockpiled for fill or disposal. Stockpile sediment away from wellhead and sensitive areas to de-water. Placement of accumulated sediments into streams or rivers may require authorization from the US Army Corps of Engineers (USACE). The USACE should be consulted prior to conducting any such activity.

5. **Manage washwaters** – After removal of gross contaminants, residues may remain on exterior surfaces. Where such residues would normally be exposed to precipitation (exterior pavement, building exteriors, etc) these residues may be removed with the aid of water. When detergents and surfactants are not used, this washwater may be allowed to discharge in the normal flow path. Prior to such operations, gross contaminants should be removed and reasonable measures should be implemented to minimize pollutant discharges. Reasonable measures would include practices such as: providing an impoundment area to allow sediments to settle prior to them leaving the area, directing washwaters to vegetated areas for pollutant removal, installing inlet protection devices or installing a series of curb socks in the curb line to slow water and remove sediment. Based on site conditions, other measures may be reasonable. When washwaters are generated from interior locations, or where detergents are used, these washwaters should be directed to a sanitary sewer for treatment at a municipal waste water treatment plant.

6. **Monitor impacts to receiving waters** – During clean-up operations, especially during washing operations, downstream locations should be observed to determine if the discharge is affecting aquatic life. If any aquatic life is observed to be stressed or is showing obvious signs of impacts from the discharge, cease the activity immediately and contact the NDEQ.

7. **Adhere to aesthetics standards for surface waters** – Nebraska State Title 117, Chapter 4 states: *This use applies to all surface waters of the state. To be aesthetically acceptable, waters shall be free from human-induced pollution which causes: 1) noxious odors; 2) floating, suspended, colloidal, or settleable materials that produce objectionable films, colors, turbidity, or deposits; and 3) the occurrence of undesirable or nuisance aquatic life (e.g., algal blooms). Surface waters shall also be free of junk, refuse, and discarded dead animals.* If any operation related to clean-up efforts is resulting in any of the situations listed above, cease the activity immediately and contact the NDEQ.

Further guidance and forms can be accessed by contacting any of the respective agencies or by contacting the Nebraska Emergency Management Agency at (402) 471-7421.

Federal Disaster Assistance related to flooding was approved August 12, 2011 for the following counties: Boyd, Burt, Cass, Dakota, Dixon, Douglas, Garden, Knox, Lincoln, Nemaha, Otoe, Richardson, Sarpy, Scotts Bluff, Thurston and Washington.

Additional Guidance Related to Post Flood Management

Updated information regarding flooding in Nebraska is being posted regularly at the Nebraska Emergency Management Agency (NEMA) web site at <http://www.nema.nebraska.gov/>

For additional guidance on environmental issues related to flooding, go to NDEQ's web site, www.deq.state.ne.us and select "[Flooding in Nebraska: Environmental Guidance](http://www.deq.state.ne.us/Gen.nsf/Pages/Disaster)." The direct URL is: <http://www.deq.state.ne.us/Gen.nsf/Pages/Disaster> . Among the documents to be found at DEQ's web site are:

[Natural Disaster Debris Management](#)

[Community Solid Waste Management and Land Disposal Ban](#)