



STATE OF MISSISSIPPI
HALEY BARBOUR, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY Recommendations for Sandbag Reuse and Disposal (June 3, 2011)

In the recent flooding along the Mississippi River, numerous sandbags have been used to create temporary levees, to increase the height of existing levees, or as other flood control measures. After the flood waters have subsided, there will be large quantities of sandbags that will need to be removed and disposed of by local governments, businesses and individuals. When handling sandbags that have been contacted by floodwaters, persons should assume that the bags and the sand contained may potentially be contaminated by bacteria and other potentially hazardous substances. Therefore, it is recommended that gloves and protective clothing be worn when handling sandbags and other flood debris contacted by floodwaters. For those sandbags that did not contact flood waters or that do not appear visibly contaminated, MDEQ recommends finding ways to legitimately reuse the intact sandbags or separated sand. Some of the options for reusing the sandbags and sand are described in this guidance.

Reuse Options for Sand

There are several reuse options for sandbags available to a local governments, businesses, or individual property owners. These options may vary depending upon the specific local needs, the number of sandbags or volume of sand, and the degree or potential for contamination of the bags and/or sand. Persons may choose to empty the sandbags in order to use or otherwise manage the sand. Also, depending upon the material, the empty bags could be reused or disposed if necessary (see disposal section below). However, in no instance should the empty bags be burned. If a used sandbag is undamaged and the sand remained dry during the flooding, the sand is assumed to be reasonably clean for reuse. For sandbags that were contacted by floodwaters, persons should inspect the bag for visible or detectable contaminants such as sewage, petroleum, or other chemicals. Contaminated sandbags or sand may appear discolored or have a heavy odor. If the sandbags were not contacted by floodwaters or appear clean, the sand could be used in the following ways:

1. *Soil Amendment Uses* – The sand could be mixed with soil or soil amendment products to create a growing medium for flowers or vegetables where the sands are clearly not contaminated in any way.
2. *Mulch or Compost Amendment Uses* – If a local government, a local farm, or a nearby plant nursery operates a composting or mulching site, they may choose to mix the sand with the compost/mulch mixture to improve drainage in the resulting compost mix.
3. *Fill Low Spots in Lawn* - The sand could be used to fill in low spots on personal property and seed the area with grass to create a level residential or business lawn.

4. *Beneficial Fill Uses* - In cases where a property needs to be built up prior to new construction to meet current or revised flood zone codes, either the intact sandbags or the sand may be used as fill material to raise the elevation of the property provided that the sandbags have not been contaminated by petroleum or other hazardous chemicals. The sandbags or the sands **should never** be used to fill in wetlands, marshlands, waterways, or other environmentally sensitive areas.
5. *Construction Aggregate* – The sand could be used in many construction or industrial activities where aggregate material is needed such as in asphalt or concrete production. Uncontaminated sand could also be used for road base or other foundational fill uses.
6. *Storm Water Check Dams* – Intact sandbags could be used as storm water check dams to divert or slow the flow of storm water from a construction or industrial property. In using sandbags as check dams, the bags must be properly stacked across the ditch or swale with a lower discharge point in the center of the sandbag dam.
7. *Landscape Construction* – The sand could also be used as a base for a brick or stone patio and/or to fill in around brick and stone in patios. Other landscaping uses could include use as a base for laying timbers to line planting beds, to mix with cement to set fence or deck posts.
8. *Playground or recreational sandbox uses* – Sand that has clearly not come into contact with flood waters could potentially be used on playgrounds or in child’s sandbox, where the sand is suitable for such uses and where the sand is clearly not contaminated in any way.
9. *Rubbish Site or Landfill Cover* – If a local government or a private company operates a rubbish site or landfill, the sand material could be used as daily or periodic cover material.
10. *Save for Future Use* – The sandbags could be stockpiled (either emptied sand or intact sandbags) and saved for future use. If being stored outside, measures should be taken to prevent sand from washing off the property through storm water run off.

For sandbags that appear to have been contacted by sewage, it is expected that bacterial or other biological contaminants will return to normal levels, given enough time and exposure to the elements. However, any person handling sandbags contacted by the flood waters should be careful to not use any sand that is visibly contaminated for uses where direct human contact is possible such as in a child’s sandbox, playground or a residential flower bed or vegetable garden. If a sandbag is visibly contaminated by sewage, chemicals or other contaminants in the floodwaters, the sands should be disposed of in the manner described below.

Disposal of Sandbags and Sand

If legitimate reuse options are not available or if the sandbags have been visibly contaminated with raw sewage, petroleum products, chemicals or other contaminants in the floodwaters, then the sandbags should be left intact and disposed in a municipal solid waste landfill or in other disposal facilities suitable for such materials. Sand which has been removed from sandbags that does not appear contaminated by petroleum products or other hazardous chemicals may be disposed in permitted class II rubbish sites, class I rubbish sites, or municipal solid waste landfills. Empty or discarded bags that previously contained sand may be re-used, recycled or disposed at a class I rubbish site or municipal solid waste landfill if the bag was not visibly contaminated by contact with flood waters.

FOR MORE INFORMATION, CONTACT:
Mississippi Department of Environmental Quality
Solid Waste Management Programs
P.O. Box 2261, Jackson, MS 39225
Phone: 601-961-5171
www.deq.state.ms.us