USE AND MIS-USE OF PLASTIC
ON SLOPES AND OTHER DISTURBED AREAS

PROPER USE OF PLASTIC

Cover dry or relatively dry soil.
If soil is wet or becomes wet, remove plastic during breaks in the weather.
Cover all bare and/or disturbed soil.
Use clear plastic so vegetation and/or root systems are not destroyed.
Securely fasten plastic to slopes. Provide sufficient overlap and watertight seal.
Make sure that runoff from plastic is directed to a safe location and does not cause further slope saturation, erosion, or damage to downslope or adjacent properties or road drainage facilities.
Use plastic, which is at least 6 mil.
**Remember:** Plastic is a temporary, emergency practice—do not keep on slope for years!
Consult with an erosion control specialist, geotechnical expert, or engineer for a site specific design and for planning guidance before installing plastic.

WHY NOT USE PLASTIC

Black, brown, and blue plastic kills the vegetation and root systems beneath it that are holding the soil together.
Plastic increases runoff and retains moisture in soil.
High maintenance.
High visual—may cause others to use plastic improperly.
Slow natural restoration process.
Can be very costly if extremely large areas require covering.

CONSIDERATIONS WHEN TREATING SMALL LANDSLIDES AND DEBRIS FLOWS

You want to de-water the destabilized slope.
Plastic retains moisture and generates more runoff and should therefore only be considered with extreme caution and only be installed in accordance with site-specific designs prepared by a geotechnical expert, certified erosion control specialist, or soil engineer.
Control subsurface water.
Control surface runoff, especially accelerated and concentrated sources.
Maintain toe of slide, whenever possible. The slide debris at the base of hill acts as a footing for the slope.
Drain slide mass. Keep it as dry as possible.
Maintain deep-rooted woody vegetation.
Prevent the ponding of water in slide area.
Plant water-loving vegetation in springs, seeps, and wet areas.
Structural retaining devices may be necessary.
Consult with a registered geologist or geotechnical expert for concerns and treatment recommendations related to land instability problems.
GET HELP BEFORE YOU COVER THAT SLOPE WITH PLASTIC

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Covering eroded soil, landslides and other disturbed areas with plastic has become a common practice among property owners, public works crews and other land users looking for a quick and inexpensive way to protect unstable soil and slope areas from the effects of rainfall and damaging runoff. Land users that apply plastic sheeting to disturbed soil or slopes are usually unaware of the potential dangers associated with its use. Plastic should never be used as a permanent measure or be installed without consulting a licensed soil engineer, registered geologist, certified erosion control specialist or other qualified professional.

Probably the most unfortunate thing about plastic is that it provides a false sense of security when improperly installed. The land user that treats a soil or slope problem with plastic may cause more serious problems, even life threatening ones, without ever realizing it because they think that they have taken an appropriate course of action. In these situations, doing nothing at all might be a wiser decision. The land user that decides to do nothing in this case will be constantly aware of the existing or potential hazard and can make appropriate plans to safeguard lives if necessary.

Before you decide to use plastic sheeting on an eroded area, landslide or other disturbed soil condition, especially if the treatment area is near a home, building or roadway consider the following factors: 1) Colored plastic kills vegetation and root systems that are holding soil particles together, especially if the plastic is left on for long periods of time; 2) Plastic is impervious and will generate more erosive runoff if other erosion and drainage control measures are not present; 3) Plastic retains moisture in the soil and can contribute to further slope saturation and instability; 4) Plastic requires a good deal of maintenance when installed properly, including the ability to remove it during winter dry spells if the soil under the plastic remains wet; 5) Plastic must be securely fastened to the slope so that wind does not blow it off and runoff water does not get under it; and 6) Plastic is site specific and is not appropriate for all situations.

Soil erosion and slope instability problems that occur as a result of winter storm events should not be treated without first consulting with a qualified professional or the United States Natural Resources Conservation Service.