

**construction**

**sites**



# SUMMARY SHEET

category

WATER QUALITY

sub-category

CONSTRUCTION SITES

BMP

GENERAL PRINCIPALS

## OBJECTIVE

To reduce water quality degradation by proper planning of construction activities and by implementing practices that reduce erosion and sedimentation.

## WHERE APPLICABLE

All construction sites

## PROS

1. Reduce erosion and sedimentation.
2. Enhance water quality
3. Improve operations
4. Enhance market ability

## CONS

1. Need for site personnel to be knowledgeable and cooperate in carrying out measures.

## IMPLEMENTATION CONSIDERATIONS

### General Best Management Practices

1. Minimize the amount of land to be disturbed and the degree to which it must be disturbed. Minimize the amount of vegetation, including trees, to be disturbed. Phase construction so that earthmoving can be done in separate increments. Time earthmoving to allow for quick seeding and revegetation. Trees should be protected beyond the spread of their branches. Filling around a tree will almost always kill it.
2. Immediately seed stockpiles of top soil with a temporary cover crop or mulch.
3. Use the final alignment of roads and parking areas for construction traffic and activities, avoiding compaction or disruption of areas not to be ultimately used for such. Treat the areas to be traveled during construction with crushed stone - avoid paving. Revegetate embankments and cuttings as soon as possible.
4. All areas not in actual use for construction should be seeded with a temporary cover crop, mulched or treated with a dressing of crushed stone. (see reference (3) 2.4, 2.10, 2.13 for details on seeding and mulching)
5. Ensure slope stability design to preserve or blend with natural contours of the land. Avoid all environmentally sensitive areas.
6. Direct all runoff to sediment basins.
7. Following construction, break up compacted soil to allow drainage, aeration and root penetration.
8. Maximize use of mulching materials including hay, straw, bark, clippings.
9. Exercise care when handling oils, gas, waste materials and other potentially "toxic" materials used during construction, so as not to allow them to be incorporated onto the site.

a

GENERAL PRINCIPALS

For Additional Information

1. Soil Conservation Service, Hackettstown, N.J.
2. Soil Conservation District, Andover, N.J.
3. Urban Land Institute, Water Resources Protection Technology, Tourbier, 1981

b

category

WATER QUALITY

# SUMMARY SHEET

sub-category

CONSTRUCTION SITES

BMP

SEDIMENT  
FILTERS AND  
TRAPPING DEVICES

## OBJECTIVE

To precipitate sediment from stormwater runoff prior to its incorporation into ground and surface waters.

## WHERE APPLICABLE

On all construction sites as temporary measures.

## PROS

1. Prevents sediment-related stream damage.
2. Minimizes contamination of water courses.
3. Aids in avoiding sediment damage to neighboring properties.
4. Erosion is reduced due to lower water velocities.

## CONS

1. Additional maintenance is involved.

## IMPLEMENTATION CONSIDERATIONS

1. Hay Bales - Standard rectangular straw or hay bales are used widely for erosion control on construction sites. They can be placed in rows along the contour to intercept runoff and filter sediment; they are used to prevent sediment from entering storm inlets or storm drain systems; they can check overland flow on long slopes. Life expectancy of a bale is approximately 3-6 months.
2. Filter fences - can be made of filter cloth attached to a wire fence and used to intercept runoff or as "filter dams" in drainage swales.
3. Sandbags - are mostly used to check runoff in drainage channels. They are effective in diverting runoff since there is little penetration of water.

a

SEDIMENT FILTERS/TRAPS

For Additional Information

1. Soil Conservation Service, Hackettstown, N.J.
2. Soil Conservation District, Andover, N.J.
3. Urban Land Institute, Water Resources Protection Technology, Tourbier, 1981

b