

# City of Winona Erosion and Sediment Control Plan Checklist

## *City of Winona - Engineering Department*

**Goal:** To control erosion and prevent sediment and other pollutants from entering the Mississippi River/ streams / wetlands / storm drain system during construction.

### **Erosion & Sediment Control Principles and Measures** **(Check all that apply to your project)**

- 1. Maintain existing vegetation whenever possible and minimize the area of disturbance. Retain and protect trees to enhance future landscaping efforts and to reduce raindrop impact. (Vegetation is the best and most cost-effective erosion control practice).
- 2. To avoid soil compaction and damage to vegetation, flag areas that need to be off-limits to construction equipment BEFORE construction begins. These areas include sewage treatment areas, infiltration basins, natural watercourses, valuable trees, and wetlands.
- 3. Install all sediment control practices BEFORE any soil disturbing activities occur (including clearing and grubbing). These may include silt fencing, rock check dams, and storm drain inlet protection. Silt fence can treat a maximum of 100 square feet per lineal foot of fence. Install silt fence in shorter reaches on the contour with each end curved uphill to more effectively filter water. Sensitive areas such as wetlands, drainage swales and shoreland areas should also be protected with silt fence, biologs/rolls or rock socks.
- 4. Divert run-on around the site, if practical (avoids treating clean water).
- 5. Phase construction activities to minimize the areas disturbed at one time. This will also allow completed areas to be stabilized and re-vegetated before disturbing adjacent sites. The need for temporary erosion control measures may be avoided by completing a phase and installing permanent erosion control measures when the final grade is attained.
- 6. Maintain and protect all natural waterways. Retain at least a 100-foot wide strip of natural vegetation along special waters (trout streams). No disturbance on bluffs, steep slopes and within structure setbacks zones are allowed to sediment and other pollutants to filter before entering surface waters.
- 7. Minimize the use of impervious (hard) surfaces such as roofs, driveways and parking areas so rain can infiltrate naturally into the ground. Direct runoff to vegetated areas.
- 8. Use rock rip-rap at both the inlet and outlet ends of culverts to prevent scour erosion and use energy dissipaters at the outlet ends (e.g. plunge pools).
- 9. In areas of concentrated flow install rock check dams, triangular dikes, bio-roll blankets or rock socks to slow runoff and trap sediment.
- 10. Use temporary slope drains or rock chutes to move water down steep slopes.
- 11. Construct sediment basins (>10 acre watershed or >5 acres near trout streams) and/or infiltration basins to treat stormwater runoff.
- 12. Cover any stockpiled topsoil with plastic (or other impervious covering) or use a temporary seed mix. Use stockpiled topsoil as earthen berms to serve as temporary sediment basins.
- 13. Install water bars on access roads to prevent concentrated water runoff from flowing down the road, eroding gravel, and filling in the ditches.

- 14. Mulch all disturbed areas at the rate of one 50-pound bale of straw per 500 square feet and disc anchor. On slopes greater than 10 feet in length and 4:1 or steeper, use the following erosion control blankets that have been properly anchored to the slope according to the manufacturer's instructions:

2:1 slopes or steeper	Straw/Coconut Blanket or High Velocity Wood Fiber Blanket
3:1 slopes or steeper	Wood Fiber or Straw Blanket with net on both sides
4:1 slopes or flatter	Wood Fiber or Straw Mulch blanket with net on one side
Flat areas	Straw Mulch w/disc anchoring

\*Use a 10 foot width in ditch bottoms

- 15. Apply fertilizer according to soil test recommendations prior to seeding.
- 16. Seed and mulch all disturbed areas within seven days of completion of land disturbing activities. Do not seed later than September 1<sup>st</sup>. Areas that need to be seeded after September 1<sup>st</sup> should be dormant seeded in late October or early November or be stabilized in another manner such as installing sod, erosion control matting, or mulch. The use of native plant materials, including trees and shrubs, is encouraged because these plants are adapted to our soils and climate.
- 17. Attach a site map showing the location of all erosion control practices, access points, existing and proposed grades (with slope direction), property lines, roads, lakes, watercourses (run-off pattern), wetlands, sewage treatment systems, and building locations.
- 18. To reduce mud transported onto paved roads, a rock construction entrance may be required (6" layer of 1-3" washed rock a minimum of 50' in length underlain by geo-textile fabric).
- 19. Other Applicable Measures: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Inspection and Maintenance**

1. Inspect the construction site every 7 days and within 24 hours after every ½ inch rain event to ensure the practices are working properly (i.e. silt fences, water bars). Keep records of inspection dates, inspector, and findings.
2. Clean out silt fences when they are 1/3 full of sediment (within 24 hours) or replace with functional silt fences.
3. Clean out sediment basins and rock check dams when ½ full of sediment (within 72 hours).
4. Maintain rock construction entrance and clean adjacent roads of any mud tracked onto them (within 24 hours).

I agree to install, inspect and maintain the above practices to accomplish the goals of controlling erosion and preventing sediment from reaching Mississippi River / streams / wetlands / storm drain systems.

Applicant: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_  
 Contractor: \_\_\_\_\_ Phone: \_\_\_\_\_ Date: \_\_\_\_\_