SHORELINE & STREAMBANK STABILIZATION CHECKLIST

MCWD recommends incorporating plantings and other bio-stabilization methods whenever possible for shoreline & streambank stabilization projects.

- ☐ **WATER RESOURCES APPLICATION FORM** (electronic signatures accepted)
- ☐ **EROSION INTENSITY SCORESHEET** (If new project proposed)
- ☐ **PHOTOS OF EXISTING SHORELINE CONDITIONS**
- ☐ **SITE PLAN/SURVEY*** (11"x17" or electronic copy)
- ☐ **PROPOSED RIPRAP CROSS SECTION****
- ☐ **EROSION CONTROL PLAN*****
- ☐ **BIOLOGICAL STABILIZATION INFORMATION** (If Erosion Intensity Scoresheet indicates)
- ☐ **$10.00 APPLICATION FEE** (Payable to MCWD by check or credit card)
- ☐ **FINANCIAL ASSURANCE**

14 day public notice is required for all NEW shoreline stabilization projects (not repair projects)

***SITE PLAN OR SURVEY** (11"x17" or electronic):

- ☐ Ordinary high water elevation contour (OHW)
- ☐ 100-year floodplain elevation contour
- ☐ Existing shoreline elevation contour
- ☐ Location of existing trees (indicate if they will be removed or retained)
- ☐ Property lines
- ☐ Plan view of proposed project linear feet
- ☐ Elevation contours 15 feet upland from the OHW

****PROPOSED RIPRAP CROSS SECTION**

- ☐ Drawn to scale (horizontal and vertical scales noted on the drawing)
- ☐ Finished riprap at a 3:1 or more gradual slope
- ☐ Labeled existing bank, OHW and 100 year flood elevation contours
- ☐ Riprap no higher than top of bank or 2 feet above 100 year flood elevation (whichever is lower)
- ☐ Geotextile filter fabric type (MnDOT 3733 requirements) placed between existing shoreline soil material & filter rock to reduce erosion
- ☐ Granular filter (MnDOT 3601.B requirements) at least 6 inches deep
- ☐ Granular filter and geotextile conforms to MNDOT standards in sections 3601 and 3733
- ☐ Riprap rocks meet MnDOT class III and IV specifications
- ☐ Toe boulders buried 50% and are 30 inches or less in diameter

- ☐ Riprap is no more than 5 feet water-ward from OHW
- ☐ Specified underlying soil materials that support riprap

*****EROSION CONTROL PLAN**

- ☐ Identify proposed access route for all land based application
- ☐ Floating silt curtain location
- ☐ Indicate if working by barge
- ☐ Identify location of any material stockpiles
- ☐ Stabilization plan for disturbed areas

FINANCIAL ASSURANCE

- ☐ Submit a surety in the form of an Escrow, Letter of Credit or Performance Bond in the amount of $5,000 or $100 per linear foot if greater than 50 feet.

BIOLOGICAL & BIOENGINEERING STABILIZATION (if applicable):

- ☐ Identify location and type of plantings in relation to hard armoring material/rip rap location
- ☐ Plant list with common and scientific names and/or seed mix (specify quantities and origins of all materials)
- ☐ Plants added to shoreline or bank are classified as native aquatic or native upland vegetation: examples include MN DNR ("Landscaping for Wildlife & Water Quality) and/or Minnesota Pollution Control Agency (Plants for Stormwater Design)
- ☐ Identify party responsible for plantings with schedule, installation & maintenance plan for three years: include invasive species control and plant replacement as necessary)
- ☐ If wave barriers are used, they do not create an obstruction to navigation, are three feet deep or less and removed within 2 years of installation