Specification for Erosion Control (Bermuda Sod)

- 1. One roadway for construction may be permitted but must be replanted upon construction completion.
- 2. A slope with a minimum grade of 3:1 is created above the 300 msl according to approved drawings.
- 3. Contractor removes excess soil from public lands and reports the amount (cubic yards).
- 4. A toe (small ditch twice the depth of the rock) is created along the base and up the each side if the entire project.
- 5. Erosion Cloth is to be placed horizontally in the toe overlapping the sides to secure the Class I Rip Rap placed in the toe.
- 6. The slope should be packed and 1 to $1\frac{1}{2}$ inches of topsoil placed on top.
- 7. A Biodegradable Matting is to be stapled on top of topsoil to secure its placement.
- 8. Bermuda Sod is placed and stapled on top of the Matting.
- 9. The Bermuda Sod should be irrigated; 1" of water per day (weather dependent) for14 consecutive days after the sod is placed.
- 10. The sod should be irrigated periodically (weather dependent) for the remainder of the first year to establish the root system.
- 11. Any area disturbed that is not protected with rip/rap or sod must be replanted with an approved species of vegetation. In areas where trees or shrubs were present before the work, a tree spacing of fifteen feet by fifteen feet must be reestablished within the fall. (Ranger will determine locations)

Sod may not be placed on main channel of lake unless approved by Operations Manager. Each area is evaluated on a case by case basis before a permit may be issued. Not all areas will be permitted to perform erosion control. Erosion Control is done on a priority bases, taking various factors into consideration.

Specification for Erosion Control (Rip Rap)

- 1. One roadway for construction may be permitted but must be replanted upon construction completion.
- 2. A silt fence is to be placed at the water line to prevent silt from getting into the water while project is underway.
- 3. A slope with a minimum grade of 2:1 is created above the 300 msl according to approved drawings.
- 4. Contractor removes excess soil from public lands and reports the amount (cubic yards).
- 5. A toe (small ditch twice the depth of the rock 24-36 inches deep) is created along the base and up the each side if the entire project. The toe and trenches up the side need to have cloth and Class II rip rap placed in them. An anchor trench (ditch 12 inches deep along top of entire project) is to be created and filled with filter cloth and Class I rip rap.

- 6. Once the slope is 2:1 or greater, the slope is to be packed with equipment (bulldozer, trackhoe, etc.).
- 7. Erosion Cloth is to be placed horizontally in the toe overlapping the sides and along the entire slope with staples every 18 inches to secure the Class II Rip Rap placed in the toe and Class I on the slope. Class I can be used on small projects not on the main channel.
- 8. Fifteen inches or greater depth of Class I rip rap is to be placed on all of the cloth of the slope.
- 9. A 12 inch anchor trench is to be dug along the entire top of project and filled with erosion cloth and Class I rip rap.
- 10. Any area disturbed that is not protected with rip/rap must be replanted with an approved species of vegetation. In areas where trees or shrubs were present before the work, a tree spacing of fifteen feet by fifteen feet must be re-established within the fall. (Ranger will determine locations)
- 11. Once project is complete, a silt fence must be placed at the top of the rip rap and remain there until grass is established, then it may be removed.