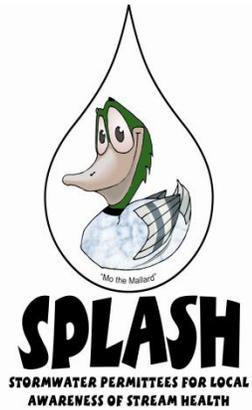


SOIL TESTS

Surface waters across the US are plagued with water quality problems stemming from excess nutrients, primarily phosphorus and nitrogen. The Cherry Creek Basin and other neighboring watersheds experience high concentrations of both. Due to elevated concentrations of phosphorus in the Cherry Creek Reservoir a control regulation was created by the Colorado Water Quality Control Commission that established limits of phosphorus discharge from water treatment plants, as well as stormwater from new development and redevelopment.



Phosphorus and nitrogen occur naturally in aquatic ecosystems and help support the growth of algae and aquatic plants which provide food for fisheries. The problem is a surplus of these nutrients, usually caused by a range of human activities. Excessive nitrogen and phosphorus cause large algal blooms that the ecosystem can't utilize and that rob waters of oxygen needed by fish and other organisms to survive. These blooms also cause health problems and limit recreational uses of our lakes and streams.

One primary source of excess phosphorus and nitrogen is misuse and improper applications of fertilizers. The first step, prior to applying any fertilizer, is to take a soil test. Soil tests will help determine the type and amount of fertilizer your lawn actually needs. Most Colorado lawns have adequate phosphorus (P) and potassium (K) but may require nitrogen (N). According to **Colorado State University Extension Service** the following nitrogen applications are recommended for a typical Colorado lawn where grass clippings are not removed from the lawn after mowing.

Grass Type	mid-March to April ¹	May to mid-June	July to early August	Mid-August to mid-September	Early Oct. to early November (when grass is still green) ²
(pounds of nitrogen per 1000 square feet of lawn)					
Low-maintenance Blue grass/ Ryegrass ³	½	½	Not required	1	1 (optional)
Turf-Type Tall Fescue	½	½ -1	Not required	1	1 (optional)
Fine Fescue	½	½ -1	Not required	½-1	Not required
Buffalograss/ Blue Grama/ Bermudagrass	Apply <u>no</u> N	½-1	½-1	Apply <u>no</u> N	Apply <u>no</u> N

¹The March-April nitrogen application may not be necessary if you fertilized late the previous year (Sept. to Nov.). If spring green-up and growth is satisfactory, delay fertilizing until May or June.

²On sandy soils do not fertilize after late September. Winter precipitation can cause nitrogen to leach into groundwater. Slow release fertilizers, such as sulfur-coated, IBSU and natural, organic-based fertilizers are recommended on sandy soils to prevent leaching losses.

³High maintenance bluegrass lawns with heavy use may benefit from an additional ½ for each spring application. Adapted from Colorado State University Extension fact sheet 7.202, Lawn Care.

Other Tips for Protecting Water Quality:

- Do not apply fertilizers near streams, lakes, ponds, or drainageways.
- Never apply fertilizers before a rain. Store fertilizers and other lawn chemicals in a covered, dry location.
- Use slow release forms of fertilizer when possible.
- Be sure your spreader is properly calibrated.
- Sweep up and dispose of any fertilizers that land on hard surfaces such as patios, driveways and roads.
- Replace turf areas with native trees, shrubs and groundcovers.