BACKYARD CONSERVATION
It'll grow on you.

Turf Watering Management

USDA, Natural Resources Conservation Service

Watering Lawns Correctly At Lake Tahoe Can Be Simple.

Just Measure How Long It Takes Your Sprinkler System To Apply ¼ Inch Of Water.

Then Water Your Lawn That Amount Of Time:

* **2 Times A Week In April And October.**
* **3 Times A Week May, June And September.**
* **4 Times A Week In July And August**.

Water Management

Exercising good water management on your lawn serves to conserve our precious water supplies and reduce runoff of fertilizers into our streams and Lake Tahoe. As a bonus your lawns appearance and health will also excel.

Turf watering management does not need to be complicated. The procedure outlined here will enable you to develop an efficient watering schedule.

These are the basic principles you need to know in order to optimize your lawn watering.

- How much water your **sprinkler system** applies.
- How much water your **soil** can hold.
- Where **grass roots** absorb most of their water.
- How much **water** your grass **uses** at different times of the year.

Soils

Different soil types hold different amounts of water. Soils in the Tahoe Basin are mostly loamy sands and coarse sandy loams. This means they can only hold a maximum of ½ inch of water in the top foot of soil. Of this ½ inch of water only 50% is available for use by plants. The other 50% is bound in the soil and unavailable for absorption by plant roots. So, only ¼ inch of water can be held in the top foot of Tahoe Basin soils for use by your lawn. The Tahoe Basin Soil Survey, available at your local Natural Resources Conservation Service office can help you determine the exact nature of your soils.

Grass

Typical turf grass roots rarely extend deeper than 12 inches into the soil Approximately 70% of your lawns roots are in the top 8 inches of soil. If the top 12 inches of soil only holds ¼ inch of water, watering over ¼ inch at a time exceeds the water holding capacity of the soil resulting in: 1) wasting of water; 2) washing fertilizers beyond the reach of roots and eventually into the ground water; 3) less healthy plants due to nutrient deficiency; while 4) increasing your costs of lawn maintenance.

Water Use of Grass

Water is used and eventually evaporated from a plants leaves through a process called evapotranspiration. The average daily water use of grass at lake Tahoe is about 1/10 of an inch per day. This varies by fluctuations in the weather and time of year.

Table 1. INCHES OF WATER USE BY GRASS IN THE TAHOE BASIN.

	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT
DAILY	.06	.10	.13	.14	.13	.09	.06
EEKLY	.54	.70	.88	1.00	.91	.67	.39
EABLE EEKLY	1/2	3/4	3/4	1	1	3/4	1/2

Scheduling Example

In order to develop an efficient watering schedule you will need to determine the application rate of your sprinkler system. Regardless of the type of system used it will only be necessary to determine the amount of time it takes to apply ¼ inch of water! To measure this, take an empty household can or bucket and mark it ¼ inch from the bottom. Place it on your lawn within the spray pattern of your sprinkler. Now turn your sprinklers on and time how long it takes the can to fill to the ¼ inch mark. This will be your **application rate**. Now for some simple math. If it takes 15 minutes for your system to apply ¼ inch and its July (refer to Table 1.), you will need to water 4 times a week for 15 minutes each (1/4 x 4 = 1 inch of water) to meet the needs of your grass. If its April, you would need to water 2 times a week. Its simple math to figure any combination of length of watering and number of times a week to water.

Checking Your Watering

Always conduct an occasional check of your watering by checking the depth of moist soil after your irrigation is complete. Your soil should be moist to a depth of 6 to 8 inches. A screwdriver will push in easily to the depth of moist soil. You can also use a small garden spade or shovel to check soil moisture and depth of infiltration. Simple electronic soil moisture sensors are also available that when buried at various depths will tell you exactly how much water is in your soil.

If water is not penetrating into your soil at least 6 inches you may need to thatch or aerate your soil to improve its intake of water. If you have added topsoil before planting your lawn, or if you have soil textures other than loamy sands or coarse sandy loams you may have to establish a different schedule for watering. Contact your local NRCS office for additional assistance.

Some deep wateriness (down to 18 inches) can help build deeper root systems that handle hot weather better. However, soils in the Tahoe Basin are typically so coarse and hold so little water that deep watering may not be practical. If you want to try to increase your lawns rooting depth with deep watering, do so prior to applying fertilizer. Pulse the water on by applying ¼ inch, letting the soil rest 2 hours then apply another ¼ inch. Do this until a shovel or spade will push easily into the top 12 inches. Water will continue to drain deeper over time. Do this until July or August when hot weather will increase your lawns need for water.

Good Watering and Lawn Care Tips

- Water between 6 and 8 am or 6 and 8 p.m.
- Water only on weekdays.
- If you receive over ¼ inch of rainfall in a week, decrease one watering for every ¼ inch.
- Water less often if your soil has a lot of organic matter or feels loamy.
- With loamy soils, more than ¼ inch of water can be applied at one time.
- Keep your irrigation schedule flexible for periods of rain or excessive heat.
- Pay attention to the health of your lawn and adjust accordingly.
- Never over fertilize your lawn.
- Fertilize only with controlled release fertilizers.
- Fertilize during cool weather in the spring and fall.
- Water after each fertilization to move fertilizer into the root zone.
- Use timers and automatic controllers to improve water conservation.
- Check the distribution efficiency of your irrigation system by placing several “catch cans” around your yard .

For further information contact:

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