

A detailed landscape maintenance plan is shown in the background, overlaid on a grid. The plan includes various lawn types such as 'LAWN' and 'NO-MOW LAWN', and numerous circular symbols containing codes like 'EpW', 'TcH', '8', 'EqE', '20', 'Hs', '10', 'FoD', '5', 'BM', '15', 'DcN', '2', 'Ls', '1', 'HHG', '23', 'SnC', '9', and 'AsS'.

# LANDSCAPE MAINTENANCE

BASICS LAWN





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# NEW PLANTINGS

## WATERING & SPECIAL CONSIDERATIONS

### **Watering**

Correct watering is crucial to the success of your plants.

It is difficult to specify the exact amount of water your new plants will need. Plant size & type, soil & drainage, amount of mulch, exposure and weather all play a factor in determining the amount and frequency of watering. Deep watering is always preferred over more frequent shallow watering. .

For example, large shrubs and trees should be watered at 2-3 locations around the dripline of the plant for 30-45 minutes; small shrubs should be watered on 2 sides for 20-30 minutes each; perennials and ornamental grasses should be watered in 1 spot for 20-30 minutes.

A good starting point for trees is 10 gallons of water per 1" of trunk diameter (at base of tree) per week. Adjust as needed to fit your soil

conditions.

If we installed or renovated an irrigation system for plantings, our irrigators will set the timer appropriately for the establishment of new plants. Weather, such as extended rainy or hot and dry conditions, may mean you want to adjust the timer yourself. If you're unsure about whether or how to do this, give us a call!

When adjustments are made, it's important to check that the plants are indeed getting the right amount of water. For a more detailed irrigation system adjustment schedule, see the section on irrigation.

### **Soil Conditions**

Plants growing in poorly drained clay soils require less frequent watering. It is very important with this type of soil to not overwater; this can suffocate and kill the plant. Consider watering deeply two times per week during the summer. Plants growing

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# PLANTINGS

## CONSIDERATIONS & NEW TREES

in gravel or sandy conditions that drain fast will require water more frequently. Consider watering deeply four times per week during the summer. If you're not sure whether your soil has a lot of clay, do a soil pit test to determine drainage rates or watch closely how fast infiltration occurs.

### **Weather**

You know how crazy and unpredictable weather in Montana can be. Weather can drastically change watering needs, especially in our climate. Hot, dry, windy conditions require more frequent, deeper watering. In cool, wet weather watering can be reduced. Most rains are quick and NOT deep soaking.

### **Harden off Plants before Winter**

Beginning in September, gradually reduce summer watering to 1-2 times per week to allow plants to harden off. Make sure to give plants a deep watering in early November before the ground freezes. This is especially important for first and second year deciduous plants, and always beneficial for evergreens. Increasing the ground moisture at this time of year ensures the plants have available water throughout the winter and early in the spring.

### **Special Situations**

- Trees planted in turf areas will need additional water, as grass roots are relatively shallow compared to that of a tree.
- Always apply water on the uphill side of a

plant on a slope and oftentimes more water is needed due to runoff.

- Planting areas mulched with rock or near concrete will absorb more heat and require higher water amounts.

### **Staking Trees**

Trees planted in windy locations, like Helena, should be staked at planting and the stakes should remain for one year.

### **Tree Protection**

Install tree guards or fencing in early fall to protect plants from deer and elk. If voles or rabbits are present in the area, tree protection should be installed on the lower part of the trunk to prevent girdling during the winter months. Tree wrap can be applied in the fall and left for the duration of the winter to protect young trees from sunscald, especially Lindens, Mountain Ash and fruit trees.

### **Mulching Trees**

A layer of mulch or compost should always be added at planting and replenished in following years as needed. Maintain a depth of compost at 2" and mulch at 3-4". It is best to apply mulch to an area as wide as the dripline and ensure it does not build up around the base of the plant.

### **Fertilizer**

For most trees, shrubs, perennials and grasses, apply a slow release fertilizer, such as Milorganite or Dr Earth, in spring covering an area as wide as the dripline of the plant.

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# PERENNIALS & GRASSES

Perennials and ornamental grasses die back to the ground each season and new growth emerges from the roots come spring. The spent foliage can be cut in either the fall, after a hard frost, or in the spring. Many grasses and perennials can be left for additional winter interest, food for the birds and shelter for beneficial invertebrates.

Most perennials are cut just above the ground, with the exception of Russian Sage and Lavender, which should be left at about 6". Any evergreen perennials and groundcovers should be left alone and cleaned up in spring if needed. Tall grasses can be chopped, or sawn, down to 3", while low mounding grasses can be trimmed into a nice 3" dome shape. It's not an exact science and plants are very forgiving!

## **Fertilizer**

Apply a slow release fertilizer, such as Milorganite or Dr Earth, in spring covering an area as wide as the dripline of the plant.

## **Mulching Considerations**

We recommend mulching plant beds at the time of planting. Mulch cools the soil, reduces evaporation, especially for shallow-root-

ed new plantings and inhibits weed growth. Mulch should be maintained during establishment.

Depending on personal preferences and the intent of the design, living groundcovers may be planted and encouraged to spread to eliminate the need for wood mulch, while providing additional benefits. If this is desired, bark fines, or soil pep are a good choice as a temporary soil cover and help to condition the soil, improving texture and water holding capacity with time.

If shredded bark or wood chips are desired, top-dress to replenish in following years as needed. Maintain a mulch depth of 3-4" for maximum benefits.

## **Deer Pressure**

If deer pressure is heavy, even so-called 'deer resistant' plants may be chomped down. Deer can be successfully deterred with either granular or liquid deer spray, such as Liquid Fence or PlantSkydd, when applied regularly. Fencing/caging may be required in some situations.

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### **Seeding Basics for Native Grasses & Wildflowers**

Establishing native areas or designed meadows by seed requires certain site preparation measures, careful irrigation and soil moisture monitoring and, potentially, erosion control. It isn't often an easy endeavor but there are some ways that you can help to create success with seeding.

Plan to seed at optimal times during the year: seeding is generally most successful in early-mid Spring when rising temperatures, snow melt and rains increase germination and establishment. Late summer / early fall seeding can be successful in wetter years. Dormant seeding in late fall / early winter can also be successful, if the right conditions are present and seed is not disturbed by birds or

other wildlife before spring.

- It's important not to overseed. Measure off seed blocks to achieve the recommended seeding rate.
- Rake in grass seed but do not cover with more than 1/4" of soil. Seed wildflowers after raking, if desired.
- You will want to see open areas after seed establishes so that plants can expand.
- Regular irrigation, 1-2+ times daily, depending on weather and sun/shading, is important for the first 6 weeks. Check often. The soil surface should not be allowed to dry out completely for long periods of time.
- You may want to overseed areas where germination rates were low. This may be necessary for several seasons after initial seeding.

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### **Maintenance Tips for Native Areas**

- A good rule of thumb for established native grass or meadows is 1" of water every 2 weeks.
  - Annual mowing helps to maintain healthy native areas. Mow around blocks of wildflower forbs. Can be done in either spring or fall.
  - Spot spray weeds or pull by hand. Staying on top of weeds as much as possible is necessary to successful establishment.
  - For weeds spread by seed and when pressure is heavy, such as cheatgrass, regularly weed-eating blocks of weeds before seed is set can eventually eliminate it from the system.
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# NATIVE AREAS

## ESTABLISHING PLANTS BY SEED

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# IRRIGATION SYSTEMS

## MAINTENANCE & AJUSTMENT

The most common issue we see with irrigation systems is a failure to adjust the system for established plantings and seasonal water needs. Plantings need a considerably higher amount of water at the time of installation. Water needs continue to decrease, weather dependant, in subsequent years. Most perennials are established after 1 full year, shrubs can take 2-3 years and trees can take 5 years to establish their root systems. Understand what your plants need and contact us to schedule adjustments. Similarly, take the time to adjust your system for seasonal water needs. A rain sensor can work well for many systems/situations.

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### Seasonal Maintenance



#### SPRING

In the spring, you will want to hire a professional irrigator to turn on your system. They will open the system main water valve, verify the proper operation of each station valve, including pressure, proper rotation and adjustment of sprinkler heads for adequate coverage. In addition, it's wise to go through the drip irrigation lines, checking for clogged, broken and missing drip emitters to trees, shrubs, perennials and grasses.



#### SUMMER

Monitor your plants, including areas of lawn and native grass for signs of stress. Signs of stress include browning and curling leaves and wilt. As summer heats up, non-functioning drip lines or emitters will become more apparent. You may want to adjust certain zones to run longer or supplementally water by hand.



#### FALL

Beginning in September, gradually reduce watering to 1-2 times per week to allow plants to harden off. Make sure to give plants a deep watering in early November before the ground freezes. This is especially important for first and second year deciduous plants, and always beneficial for evergreens. Increasing the ground moisture at this time of year ensures the plants have available water throughout the winter and early in the spring.

Have your system winterized by a professional irrigator. Even if you have drained the water out of your irrigation system, some water remains and can freeze, expand, and crack PVC piping and rupture polyethylene pipe walls. Freezing water in the backflow assembly will damage the internal components and can crack the brass body.

The most common winterization method is 'Blow Out Method' using compressed air. Using the correct amount of air pressure is critical. After blowout, the backflow or pump is drained.



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# LAWNS

Irrigated lawns are typically low maintenance but you may want to consider a lawn fertilizer such as Pro-Rich. Alternatively, top-dressing with compost, ideally in the spring, can be done annually or less frequently to keep a lawn full and green. Eko-compost, for example, is great at encouraging grass to fill in bare areas or to blend mis-matched types of lawn grass together. Aerate lawns (how frequently and in any specific situations?).

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# WATER FEATURES

It is possible that water features require the most maintenance of any aspect of a landscape. Even a well constructed will do best with weekly maintenance and depending on the season and the location of the water feature it could be more often. The two banes of water features are algae and leaks. The former can be mitigated with the help of water plants and routine maintenance. Leaks can be tricky to find but not impossible with a little detective work.

## **Algae**

Algae is generally unsightly and usually the sign of an unkept water feature. The two common contributors to this green growth are sunlight and organic material such as fish poop and decaying leaves. The easiest way to reduce algae is to install a pondless water feature which is a stream that simply disappears into a ground vault and is recirculated through a filtration system therefore greatly reducing the amount of sur-



face area sunlight can grow algae in while also eliminating organic collection points. If you desire a pond it is very helpful to add water plants. Their leaves help block sunlight and their roots provide a natural filter for the water. And because it is hard to have a pond and not have fish, the plants will also offer habitat for your little pets. Hungry fish actually eat algae so it is a good idea to keep them on a bit of a diet. Uneaten fish food, fish poop and other organics that break down all help to feed algae, that is why the weekly maintenance of cleaning filters and adding fish-safe products such as Algae Fix is important in keeping your pond clear and healthy. The blowing leaves of Fall will increase this maintenance schedule. It is inevitable that dirt and dust will also blow into your pond and create sediment. Spring is an excellent time to drain your pond and scoop out the muck, power wash rocks, and replace old filters.

### **Leaks**

The easiest way to find a leak is to turn the pump off. If the water level does not drop in the pond or vault, then the leak is in the stream, which is the most common. Look for obvious wet spots on either side of the stream outside of the liner. Dirt and leaves



will unavoidably blow into your water feature causing small water dams that can change the flow of your stream force water over the liner. Children and dogs are also magnetized to water features and will change the flow by moving rocks. These and other outside forces are the most common cause of leaks. It is rare that the leak is due to a hole in the liner but not unheard of. A heavy rock placed carelessly on the rubber liner can cause such a hole and is difficult to detect without a thorough overhaul of the feature.

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# WATER FEATURES (CONT.)

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