Seasonal Maintenance Guide

Spring
- Scatter seed
- Plant new plugs and transplant
- Check for early germinating invasive plants
- Remove invasives (pull, cut, dig out)
- Remove sediment from inlets
- Remove trash
- Renew mulch in planting beds and on borders
- Trim or mow edges or borders
- Trim species that could get too tall for site before flower buds form

Fall
- Check for invasive plants
- Remove invasives (pull, cut, dig out)
- Collect seeds as they mature
- Plant plugs, transplant and divide crowded plants (through early October)
- Remove sediment from inlets
- Remove trash
- Trim or mow edges, borders, and paths

Summer
- Check for invasive plants
- Remove invasives (pull, cut, dig out)
- Trim plants that are too tall
- Trim or mow edges, borders, & paths
- Remove sediment from inlets
- Remove trash
- Collect seeds from spring bloomers
- Water new plants (1 inch/week) during droughts
- Report any invasives that should be herbicided

Winter
- Cut standing dead as needed
- Prune shrubs and trees as needed
- Scatter seed
Fall Cleanup
Cut standing dead plants

In the fall, cut standing dead stalks and tall grasses down to about one foot off the ground and leave plant material in the garden bed. Cut standing dead only where the garden aesthetically should be kept neat. In areas where it is acceptable to leave standing dead stalks, leave them for wildlife habitat.

It is best to wait until early November to cut the dead stalks to maximize the time that birds can use the seeds and structure of the plants. Cutting back dead stalks is easiest to do once the plants are dry but before it snows.

Plant material will decompose faster and not become a nuisance if it is in pieces that are no larger than about two feet long. If the plant material is tall, you can cut in stages starting at the top and working your way down in increments of about two feet. This is a quick way to get the longer stems and grasses to a smaller size and often easier than cutting a large stalk down from its base.

Why leave plant material on the ground over winter instead of composting?

Leaving plant litter, leaves, or dead stalks on the ground offers many benefits to our rain gardens and native plant sites. This material creates a winter habitat that provides nesting and protection for native bee’s, butterfly’s, toads, and salamanders to overwinter.

Like a layer of mulch on the ground, the plant layer also insulates and protects plant roots from cold winters. Leaving plant material on the ground also supports more insects that birds can eat during the winter months. Birds will then use plant litter and seed heads to build their nests in the spring.

Plant litter can also function as compost as it decomposes and replaces nutrients taken up by plants. Compost helps improve the health of soil which creates a productive environment for plants.

• Cut tall standing dead stalks and grasses
• Leave plants about 1 foot tall from ground
• Break or cut stalks into pieces about 2 feet long
• Leave plant material on floor of garden bed

Argo Rain Garden in Summer, Fall and Winter
Garden borders and path edges are trimmed down to a height of about 2' from the ground and about 2' back. Tall tree or shrub branches can be cleared along a path or border about 2' back and at a comfortable and safe height for the gardener to reach. If stems or branches are too thick or hard to reach a work ticket can be entered for any location.

This type of trimming gives space for walking and helps clean up garden edges that have become wild or overgrown while still allowing plants to remain established and continue to grow.

Suggested tools include sheers, hand clippers, manual or electric hedge sheers, bypass pruners, lopping sheers, double-edged weed cutters or small hand saws. Please be careful to wear appropriate gloves, clothing, shoes and eye protection when trimming or cutting.

Trimmed plant material and branches can be left in the garden bed in most cases. It is helpful to keep pieces no larger than about 2'. Trimmings can also be composted if there is not space in the garden for them.

- Trim or cut plants and branches around paths and garden borders
- Wear gloves and eye protection
- Trim plants down to about 2' high
- Trim plants back from edge about 2'
- Trimmings can be left on ground or composted
Pruning
Importance & Timeline

Why: Removing branches or limbs of shrubs and trees is usually done to improve shape, health, or productivity. Pruning will influence the direction a plant will grow based on how it is cut. Plants will be healthier when diseased, dead, or rubbing branches are removed. Pruning also encourages flower and fruit development. It is important to know when, what, and how to prune.

When: Seasonal! Ideal pruning time depends on the species. Most deciduous trees and shrubs should be pruned in late winter or early spring just before new growth begins. For flowering Plants it’s important to know when blooms are produced.

Old Growth: Flowers that form on old growth should be pruned just after flowers fade to prevent removing newly forming buds.

New Growth: Flowers that form on new growth should be pruned in early spring to stimulate shoots for buds to form on desired direction.

Late Spring – Early Summer
• Spring flowering trees and shrubs right after flowers fade
• Year-old growth: pruning after flowering before new buds have begun to form
• When flowers form on last years wood, wait until plants have flowered to prune

Late Summer
• Few plants should be pruned in late summer or fall
• Summer pruning encourages new growth that might not harden before winter cold sets in
• If you do summer pruning make sure to do it at least 6 weeks before the first frost
• Flowering Shrubs should only be pruned in summer if they form flowers on new growth

Anytime
• Any dead, broken, or diseased or branches should be removed immediately to improve plant health and prevent insects or disease.
• Make sure branches are dead and not dormant

Late Winter – Early Spring
• Summer blooming trees in shrubs in winter before new growth emerges
• New growth: Early spring pruning stimulates shoots for buds to form on
• When flowers form on new growth
• Just before plants break dormancy after heavy frosts and severe cold are done
• Pruning cuts just before growing season will stimulate new growth in
Pruning Techniques

**What:** While each species or location may have special care needs, general suggestions can apply to everyone. Pruning should be done to encourage good branch structure, promote air circulation, and support the health of the plant.

- Dead, dying or diseased limbs
- Rubbing, crossed, entangled or competing limbs – cut the weaker of the two
- Thin, weak, or narrow-angled growth
- Branches that grow back towards the center of a tree
- Suckers (stems growing up from roots)
- Water sprouts (shoots growing up from trunk or branches)

**Where:** There are several different ways to prune depending on the plant species, how it grows, and your goals.

**How:** Pruning works best when it is done when cuts are sharp and clean to minimize damage and help wounds heal quickly

**Basic Do’s and Don’ts**

- Cut cleanly with sharp, clean pruners
- Don’t make ragged cuts or leave stubs
- Don’t cut flush to trunk or branch
- Make pruning cuts above the bud that grows in the direction you want the new growth to go in
- A bud on the outside of a branch will grow out
- A bud on the inside of a branch will grow in towards the main trunk
- Pruning top branches encourages lateral or low spreading, bushy growth
- Pruning side branches encourages upward, less bushy growth
- Cuts should be at a slight angle, around 45-degrees, just above the bud

- Don’t create a long or sharp angled cut with too much exposed surface
- Don’t leave a long stub above the bud
- Always use the right tool for the job! Larger branches require larger tools to prevent injury to the plant.
- Cut large branches in sections using 3 step process - Avoid ripping bark
- Always prune above a bud that is facing the outside of the plant and never the inside. This encourages new growth to grow outwards and not inwards
- Lateral Buds – grow on the side of a shoot and encourages sideways growth (bushy). Select the bud you want to keep and cut just beyond that on the branch

Always make clean cuts at a 45-degree angle. The lowest point of the cut should be opposite the bud, and the highest point should be about ¼ inch above the bud.

- Terminal Buds – growth at the tip of a shoot that encourages longer growth (tall). Pinching this will stop the stem from growing longer. This encourages bushy growth. Typically, only done on younger, smaller shrubs to encourage an even shape.
Pruning
Techniques & Tools

• Thinning – Cutting a stem or branch back to its point of origin on main stem or branch. Reduces plant bulk with minimal regrowth

How Much
• Removal of around 20%-30% of the plant will be desirable at most rain garden sites
• For older, larger, or overgrown shrubs: Cut each stem or branch back to its point of origin on the main stem

Renewal Pruning
Remove up to 1/3 of the oldest or thickest trunks down to the ground. This will encourage new growth from the base of the plant

Rejuvenation pruning
Shrubs with multiple stem growth habits can be cut back close to the ground. This extreme pruning will limit the next season’s growth but reduce plant size

Tools: Keep tools sharp and clean to reduce damage and prevent spreading disease.
• Use sharp, high-quality pruners, pruning shears, lopping shears or hand saws
• Ideal tools will be lightweight, cut easily, and make clean cuts that will quickly heal over
• Maintain tool: Keep them sharp, clean, and operating smoothly.
• Sterilize pruners after cutting a diseased branch
• Don’t use pruner’s when a saw is necessary

Larger Limbs: When cutting larger limbs or shoots make sure to use a tool that is big enough to avoid increasing the wound on the plant. Exercise caution with larger limbs or send us a note and we can put in a work ticket to have the job completed by a professional team.

• Don’t cut a big limb with a small tool! Squeezing and partial cuts can cause more injury and stress to the parent plant.
• Saw large branches in sections using 3 step process - Avoid ripping any bark
• Limbs larger than 1-1.5 inches in diameter should always be sawed off

Always stand on the ground! Never use ladders or stools to trim high branches. This is a job for tree pruners, pole saws or professional arborists! Do not prune near electrical or utility wires.

Elderberry Shrub
Hand Pulling

It is important to get out as much of the root as possible when hand pulling and try to avoid breaking the plant off above the root. This is easiest to do when the soil is moist (but not super wet) and when weeds are smaller. Small roots are weaker and moist soil makes it easier to get more of the root out.

Grip weeds from their base, or the top of their roots and not the leaves or upper stems. Pull slowly and steadily and you can even twist the plant slightly to ease the roots away from the soil.

Tools can help! Garden gloves can provide grip and protect your hands from thorns or prickers. A hand weeder, trowel, claw, or even a stand-up weeding tool can help to break up the soil around roots and loosen the plant out. It is important to be careful with tools not to cut roots and leave them behind in the soil.

- Easiest when soil is moist and weeds are smaller
- Grips weeds at their base near the ground
- Pull slow and steady to ease roots out
- Get as much of the root as possible
- Use gloves for grip and tools to loosen soil
- Weeds can be put in compost bags
**Harvest Timing:** It is very important to wait until seeds are ripe and mature to begin collection while also being careful not to wait too long. While it may be tempting to collect seeds early it is critical that seeds mature on the parent plant to ensure they will remain viable. Once matured seeds can be further dried indoors.

Once the parent population begins to show signs of maturation it is best to check on plants frequently in order to harvest as soon as seeds are mature. Seed collection should be done once the seed pod is ripe but before it splits open and releases seeds. Many seeds mature at intervals which can make collection challenging. It is ideal to check plants every few days to collect the newly ready seeds. Each year and site will be slightly different and will be impacted by environmental conditions, site size, soil, and weather.

**Collection Basics:** If possible, collect seeds from plants scattered throughout the garden or area as opposed to just collecting from a single grouping of plants. This helps support genetic diversity for the seeds you are propagating as well as those dispersing on their own. It is ideal to collect seeds on dry days and when the plants are as dry as possible.

Seed collection should always be done in moderation and in a method that does not damage existing vegetation or habitat and never devastates the parent population. A good general rule of thumb is to never exceed 1/3 of available seed and for rare species please take less.

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**SEED COLLECTION**
- Always wait until seeds are mature
- Collect seed from throughout habitat
- Never collect more than 50%
- Collect on dry days from dry plants

**TIMING & WEATHER**
- Check plants often for seed maturity
- Mature seeds will disperse quickly
- Hot and Dry = Speeds it Up
- Cold and Moist = Slows it down

*Volunteers at Miller Nature Area*
Mature Seeds: Generally native seeds from grasses, perennials, and annual wildflowers are ready for collection 2-5 weeks after peak bloom. Shrubs and trees often take longer, up to 2 months. Seeds will become a darker color and will feel firm or hard and dry. Flowers will begin to drop their seeds when they are matured or they will fall away easily when you gently pull or shake them. Seed pods will rattle when they are ready. The parent plant will often show signs of dying back or will have already begun dropping seeds.

Once seeds are mature, they often disperse quickly in the wind or to animals. For this reason, it is suggested that plants be checked often once the maturation window is close and seeds should be collected as soon as they are ready.

MATURE SEEDS
• Dry, firm, and darkened in color (often brown, black, gray, or tan)
• Easy to break off the parent plant with a gentle tug or shake

UNRIPE SEEDS – NOT READY!
• Still moist, easily pliable, or colorful (green, yellow, white)
• Firmly attached to the parent plant, or easily bend and twist

Harvesting by Hand: Seeds can be collected by shaking, stripping, or prying seeds from seed heads or you can cut the seedpod, seed head or capsule from the stem and separate later. Gloves can be helpful for prickly seeds or stems!

Drying Seed: Seeds will benefit from additional drying time before storage even when they are ripe and hardened. Seeds or pods that appear dry can still retain enough moisture to develop mold or rot once sealed. A few weeks of drying is often plenty and will increase their longevity.

Simple ways to dry is to leave seeds in a paper or cloth bag or open bin where they receive good air circulation such as a paper bag, or spread thinly on top of a dry open surface or screen.

Hand bags or place racks in cool, airy locations for the seedpods to dry out. Avoid hot or humid locations and direct sun. Protect seed from rain, animals, or exposure to contamination.

Seeds can be removed from their pods by gently opening the pod and pouring or shaking the seeds onto paper. If preferred you can remove plant debris but as long as it is dry it shouldn’t be a problem.

DRIYING SEED
• Always dry seeds and pods for several weeks
• Place in a paper bag or spread on a screen
• Cool, dry location with good air circulation
• Protect from rain, sun, animals and contamination
Propagation - Transplanting
Planning

Location: Take note of what the conditions are like where the plant is located before transplanting. Duplicating or improving this environment as much as possible is key to survival. Consider the light, soil moisture, and soil acidity.

Knowing your plant: Plants can be transplanted whole to new locations or they can be divided depending on the type of plant and its size. It is much easier to transplant young or small plants. The older or larger plants are, or the deeper their roots, the less likely they are to survive transplanting. Older plants and large clumping plants with big root masses may be best to leave in place. Consider another method of propagation such as seed collection, layering, or cuttings.

• Water the plant and its new location thoroughly before
• Cut back any dead, dying or diseased foliage.
• Cut back extra large or long foliage, a smaller plant will have an easier time focusing its energy on establishing and roots and worry less about maintaining its leaves.

Preparing the Plant! Transplanting is stressful for plants, so a little prep work can go a long way.

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When? The general rule of thumb is to transplant in the opposite growth season of when the plant blooms, flowers, or produces seeds. Always avoid transplanting while a plant is blooming.

• Early Spring (April/May) - Summer or Fall Bloomers
• Early Fall (Late August/Early September) - Spring Bloomers
• Summer - Avoid June – Mid August if possible! High temperatures and drought are hard on plants and make the already stressful transplanting process more difficult. If necessary to transplant in summer, extra water and a thick layer of mulch will help increase chances of survival.
• Late Fall – Make sure plants have at least 6 weeks to settle in and get their roots established before the first frost. A thick layer of mulch will help late transplants winter over. You can also cover the plant entirely with mulch after the cold sets in and pull mulch back in early spring.

Rain Garden at the Thurston Nature Center
Propagating - Transplanting
Implementing & Follow Up

Preparing the Soil
- Dig a hole that is 1.5 times as wide and little deeper than the plant’s roots will be.
- Loosen soil to make a nice spot for the plant to settle in and stretch its roots!
- Add compost soil to the hole and bring bottom up to depth of new plant. Use 100% organic compost soil and avoid top soil, peat, or potting soil.

Digging
- Push a sharp spade or shovel deeply around the entire perimeter
- Estimate the root size to capture as much of the root ball as possible
- Use a sharp spade for clean breaks in the roots
- Lift the plant up slowly out of the ground with the soil intact
- Once out of the ground, the plant can be split in half, thirds, or quarters depending on its size.

Removing only a portion: Dig out only half of the plant and leave the other half in place by using a sharp shovel to cut through the center of the plant. Fill in the hole with loosed soil or compost and water the parent plant thoroughly.

Planting
- Build a firm mound of soil in the middle of the hole.
- Spread roots over the mound so that the crown of the plant sits just above the soil line. Avoid placing the crown below the soil line – keep it level or slightly above.
- Gently fill the remaining hole back in with compost soil, keeping the crown raised.
- Push soil down firmly to keep everyone in place and prevent sinking.

Water
- Water both the parent plant and the site where you will transplant thoroughly ahead of time.
- Keep plants and roots moist throughout the digging, removing, and transplanting process.
- Water new transplants and parent plant thoroughly and regularly.
- Generally new transplants will need more water the first few weeks or during extra hot times.
- Avoid fertilizer! This encourages top growth and will delay root development. Fresh transplants benefit from directing their energy to establishing their roots.

Mulch around new transplants and water slowly and thoroughly.
- If you can’t get transplants in the round right away keep them covered, moist, and in the shade.