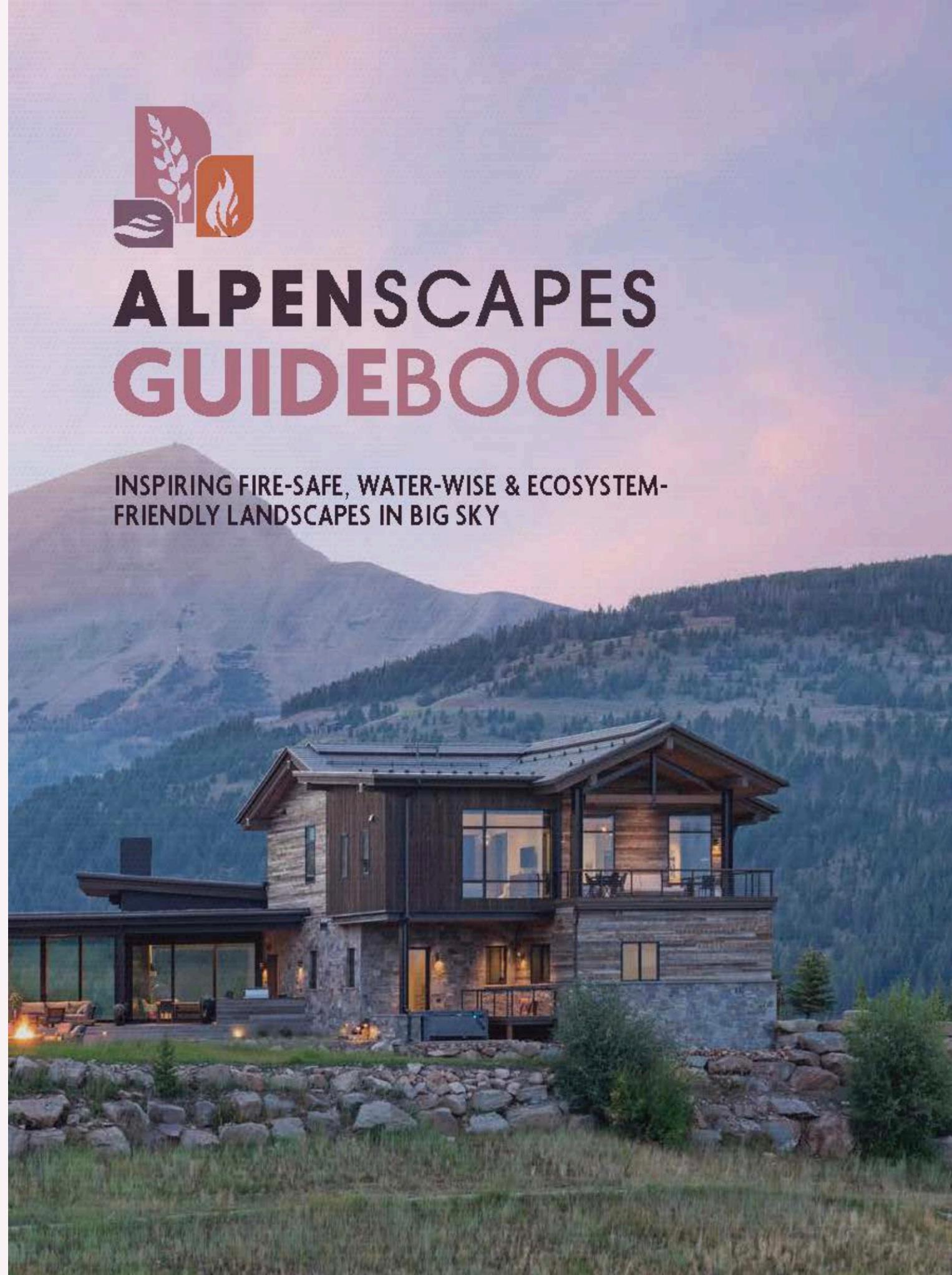




# ALPENS CAPES GUIDEBOOK

INSPIRING FIRE-SAFE, WATER-WISE & ECOSYSTEM-FRIENDLY LANDSCAPES IN BIG SKY





**"NATURE IS NOT A PLACE  
TO VISIT, IT IS HOME."**

Gary Snyder



WELCOME TO

# ALPENSAPES

Rooted in our shared commitment to Big Sky's future, this guide was created to help you design landscapes that thrive in our unique environment and support its ecological balance. It offers inspiration and guidance for creating and caring for resilient, sustainable, and beautiful outdoor spaces in the heart of the Greater Yellowstone Ecosystem.

Inside, you'll find ideas and practical tools for making landscape decisions that benefit your property, our community, and the wild places we all love.

Whether you're a full-time resident, a second homeowner, a renter, a builder, a business owner, a property manager, or part of a homeowners association, your landscaping choices have a lasting impact. Together, we can create beautiful landscapes that are prepared for wildfires, use water efficiently, and support native plants and wildlife. Thank you for your help in keeping Big Sky flourishing, resilient, and wild.

-The Alpenscapes Team



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**Designing a landscape that's both beautiful and grounded in firewise, water-wise, and ecosystem-friendly principles might seem like a daunting challenge—and that's exactly where we come in.**

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## **WHO WE ARE**

Alpenscapes is a Big Sky partnership that promotes beautiful, native, and sustainable landscaping to reduce wildfire risk, decrease water use, and conserve native species.

This collaborative initiative combines the expertise of four Big Sky organizations to provide resources, knowledge, and support to property owners, property managers, renters, landscape professionals, owners associations, and anyone wanting to make a difference.

We are dedicated to ecological stewardship, offering guidance to help residents create site-specific, lower-maintenance landscapes that exist in harmony with our unique mountain environment. Through free resources, education, and community engagement, we work to achieve a thriving coexistence for people and nature.

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## WHY THIS MATTERS IN BIG SKY

Big Sky landscapes differ greatly from other locales. Here, we face long, snowy winters, short, drought-prone summers, wildfire risks, and a water supply dependent on snowpack. Our mountains, meadows, forests, and streams demand something different.

Something better. Something resilient.

Living in Big Sky means more than adapting to the climate—it means living with fire, sharing water across seasons, managing invasive species with care, and stewarding one of the last truly wild ecosystems in North America.

The way we shape our landscapes, what we plant, and how we care for the land directly impact the health of our rivers, the resilience of our forests, the abundance of wildlife, and the safety of our homes. Alpenscapes is here to help you make choices that create resilient outdoor spaces rooted in the spirit of Big Sky.

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*Wildfire preparation can make the difference between your home surviving or not. Homeowners who follow firewise guidance and properly space trees are more likely to have green trees after a fire moves around their home.*



*Creating defensible space, keeping plants hydrated, and using non-combustible materials near your home can mean the difference between a close call and a lost home.*

## WILDFIRE + WATER + NATIVE

In Big Sky, every landscape choice has an impact. Embers can ignite dry plants and wooden features before flames even arrive. Traditional lawns that require heavy irrigation strain our limited water supply. And planting non-native species can degrade the habitats our wildlife depends on.

The good news? With thoughtful design, your yard can do more. It can protect your home from fire, conserve water, and support the native ecosystems that make this place wild.

### FIRE RISKS TO YOUR HOME

Fire spreads in four ways:

- **Radiant Heat**  
(heating surfaces from a distance)
- **Convective Heat**  
(hot air drying and igniting fuels)
- **Conductive Heat**  
(fire traveling through materials)
- **Embers**

Most homes are lost when embers ignite leaves, mulch, vents, decks, or fences that are immediately adjacent to the house, long before the main ground fire arrives. Low branches and shrubs below trees serve as “ladders”, allowing fire to move from the ground to the tree canopy. Dry vegetation, overgrown shrubs, and wooden fences connected to the home provide additional fuel.

### WATER SUPPLY DRIVERS + THREATS

Snowmelt is Big Sky’s water bank. It recharges our groundwater, keeps rivers flowing, and supports everything from drinking water to recreational activities to wildlife. But warming temperatures, shrinking snowpack, and longer periods of droughts are limiting that water supply faster each year.

Non-native lawns and inefficient irrigation are the biggest culprits of excessive water use, often needing far more irrigation than the climate naturally provides. Swapping out thirsty turfgrass for native plants—which are inherently drought-tolerant—is one of the most powerful steps you can take to protect our water supply. It’s important to note that even if your lawn is comprised of native Montana plants, water can be wasted through inefficient and leaky irrigation systems.

### NATIVE MONTANA PLANTS

Native Montana plants aren’t just a nice-to-have. They are the foundation of a healthy ecosystem and have adaptations that allow them to thrive in our drought-prone climate without pesticides, fertilizers, and heavy watering. Many native plants are also naturally snow-tolerant, with built-in adaptations that help them withstand heavy snow loads and long winters. Planting native is how we live in harmony with the land and sustain the birds, butterflies, and bears that depend on it.



*Utilize rock in the Immediate Zone—the first 5 feet around your home. Avoid mulch and other flammable ground cover to reduce fire risks. Relocate woodpiles to a minimum of 20 feet away during wildfire season.*



## LANDSCAPE DESIGNS

To inspire you, we've created a landscape "cookbook"—complete with ingredients, layout ideas, and tips for success based on Big Sky's unique climate, soils, and seasons. Each design concept offers a starting point you can adapt to fit your property. Mix, match, and substitute based on your site conditions, goals, and personal style—fire-safe, water-smart, and native landscapes are here for everyone!

### THE SNOW SMART FRONT ENTRANCE



#### INGREDIENTS

Gravel, larger rocks, concrete, native grasses, snow-tolerant vegetation.

#### WHY IT WORKS

Better handles heavy snow from shoveling and plowing, tolerates salt damage, and maintains curb appeal even through muddy shoulder seasons.

#### PRO TIP

Swap concrete for flagstone or permeable pavers for a softer, more natural look that's also more eco-system friendly.

Use larger rocks in areas where the majority of snow is pushed to help hide any accumulated sand in the non-winter months.

### THE DRAINAGE DEFENDER



#### INGREDIENTS

River rock, ferns, Canada anemone, shade-tolerant natives. French drain or other drainage solutions.

#### WHY IT WORKS

Prioritizes water movement away from foundations, minimizes plant damage from heavy snow, and thrives with minimal maintenance. With a French drain, water seeps through the gravel-filled trench and enters a perforated pipe on a downward slope that redirects excess water away from a property.

#### PRO TIP

When considering landscaping for the north side of your home, north-facing slopes, or other heavily shaded areas, focus on functional design that maximizes drainage and uses plants that thrive in low-light conditions. Limited sunlight means few species will flourish, so plant selection is key. Other creative and low-maintenance options include gravel, rocks, and other permeable hardscape options.

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## THE SHOWSTOPPER



### INGREDIENTS

Wildflowers, native shrubs, decorative rocks.

### WHY IT WORKS

Adds colorful curb appeal, is easier to maintain, supports wildlife, and is visible from inside and outside the home.

### PRO TIP

Use denser shrubs or strategic boulders to create natural screens without blocking your view. Be aware of your neighbors and how your planting affects them.

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## THE FIREWISE PATIO PERIMETER



### INGREDIENTS

Non-combustible decking, gravel, sedums, fire-resistant groundcover.

### WHY IT WORKS

Creates a safe, low-fuel buffer around your home, makes maintenance easier, and prevents root damage to foundations and utilities. The Firewise Patio Perimeter also allows you to spend less time on your lawn so that you can spend more time enjoying it.

### PRO TIP

Do this to expand your usable outdoor living space while mitigating fire risk to your home.

## FIREWISE ZONES

### THE IMMEDIATE ZONE

**0-5 FEET AROUND YOUR HOME, INCLUDING DECKS & EAVES**

**GOAL:** Use non-combustible materials and eliminate all flammable vegetation to protect against ember entry and direct flame contact.

**ACTIONS:**

**STRUCTURE PERIMETER:** Clear all flammable vegetation and materials (mulch, shrubs) a minimum of 5 feet from the home's foundation, decks, and attached structures. Woodpiles should be at least 20 feet away from your home during fire season.

**ROOFS & GUTTERS:** Ensure all roofs are of a Class A, non-combustible material (e.g., metal, asphalt shingles) and regularly remove all dead leaves and pine needles from gutters.

**VENTS & EAVES:** Screen all exposed vents with 1/8-inch non-combustible metal mesh to prevent embers from entering the structure.

**SIDING & WINDOWS:** Use ignition-resistant siding (e.g., Hardie board) and double-pane, tempered-glass windows.

### THE INTERMEDIATE ZONE

**5-30 FEET FROM YOUR HOME**

**GOAL:** Thin and space vegetation to reduce fire intensity and interrupt the fire's path.

**ACTIONS:**

**VEGETATION SPACING:** Tree branches in this zone should be at least 10 feet away from the structure. Thin trees and large shrubs to create separation. The National Fire Protection Association (NFPA) firewise guidance is to space trees with a minimum of 18 feet between tree canopies. Tree and shrub placement in this zone should be limited to small clusters of only a few each to break up the continuity of vegetation.

**LADDER FUELS:** Prune lower tree limbs to a height of at least 6-8 feet from the ground, to prevent a ground fire from transitioning to the canopy. For shorter trees, do not exceed 1/3 of the overall tree height.

**GROUND FUELS:** Remove dead or dying vegetation, fallen branches, and heavy accumulations of pine needles and leaves.

**IRRIGATION:** Maintain existing landscaping with regular irrigation where possible to keep plants healthy and less flammable.

### THE EXTENDED ZONE

**30-100 FEET FROM YOUR HOME OR TO THE PROPERTY LINE**

**GOAL:** Reduce the continuity of fuel to slow a wildfire's progress and reduce flame length.

**ACTIONS:**

**THINNING:** Reduce ladder fuels. Continue to thin vegetation, focusing on removing small, flammable trees and shrubs. Tree canopy spacing should be at least 12 feet within 30-60 feet from your home, but can be reduced to 6 feet spacing when beyond a 60-foot distance.

**REMOVE DEBRIS:** Continue to clear dead vegetation and debris from the forest floor.

**DRIVEWAY ACCESS:** Maintain a minimum of a four-foot zone of reduced vegetation on each side of the driveway to ensure access for emergency vehicles.

The treatment in this zone can extend out 100-200 feet from any structure.





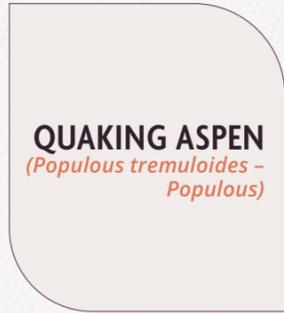
## BIG SKY'S KEYSTONE PLANT EXAMPLES



**DOUGLAS FIR**  
(*Pseudotsuga menziesii* –  
*Pseudotsuga*)



**SHOWY FLEABANE**  
(*Erigeron speciosus* –  
*Erigeron*)



**QUAKING ASPEN**  
(*Populus tremuloides* –  
*Populus*)



**GOLDENROD**  
(*Solidago missouriensis* –  
*Solidago*)



**CHOCKECHERRY**  
(*Prunus virginiana* –  
*Prunus*)



**LITTLELEAF PENSTEMON**  
(*Penstemon procerus* –  
*Penstemon*)



**BEBB WILLOW**  
(*Salix bebbiana* – *Salix*)



**ONEFLOWER SUNFLOWER**  
(*Helianthella uniflora* –  
*Helianthus*)



**PALE PURPLE CONEFLOWER**  
(*Echinacea pallida* –  
*Echinacea*)



**NARROWLEAF COTTONWOOD**  
(*Populus angustifolia*)



## FIREWISE PLANT EXAMPLES



**FIELD CHICKWEED**  
(*Cerastium arvense*)



**PRAIRIE SMOKE**  
(*Geum triflorum*)



**SULFUR BUCKWHEAT**  
(*Eriogonum umbellatum*)



**ROCKY MOUNTAIN IRIS**  
(*Iris missouriensis*)



**YELLOW COLUMBINE**  
(*Aquilegia flavescens*)



**PRAIRIE ALUMROOT**  
(*Heuchera richardsonii*)



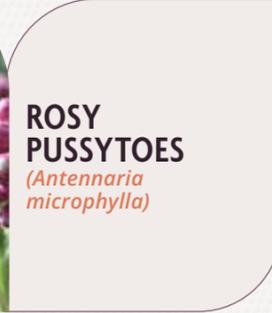
**CUTLEAF DAISY**  
(*Erigeron compositus glabratus*)



**CREeping PHLOX**  
(*Phlox subulata*)



**ROSY PUSSYTOES**  
(*Antennaria microphylla*)



**WILD BLUE FLAX**  
(*Linum lewisii*)





# Design before you dig.

*If your property is a second home, focus on simple, low-maintenance landscapes. Choose hardy native species that look good and can thrive with minimal care, even when you're away.*

## PLAN YOUR LANDSCAPE

The first step: call Montana 811 to ensure that there aren't any gas or electrical lines near the site. Get to know your property by observing your yard at various times of day and in different weather conditions. This will help you adjust your strategy based on your property's attributes and microclimates.

Notice where the light is hitting. Watch how water moves across the landscape when it rains. Where does water runoff or pool? Do you feel water anywhere? Are there any temperature differences? Your site conditions, sunlight, and snow behavior should guide your choices so that you can develop a solid plan and ensure your landscape is resilient from the start.

When it comes to choosing the right plants, it's important to consider your location. Big Sky's elevations and exposures create a wide range of growing conditions, so it's critical that you choose plants that fit your site to foster a healthy landscape.

### ► MOUNTAIN (7,500+ FT)

Short growing season (60–75 days), high winds, intense sun, cool temperatures year-round, and the possibility of snow in any season. Soils are shallow and rocky.

### ► MEADOW (6,500–7,500 FT)

Moderate growing season (75–90 days) with warm days, cool nights, and early/late frost risk. Summers are sunny and can be dry. Soils range from rocky to fertile loam.

### ► CANYON (BELOW 6,500 FT)

Longer growing season (90–110 days), lower frost risk with occasional cold snaps, hotter and drier summers, more sheltered from wind and cold. Soils are typically deeper with better moisture retention.



**“THE ENVIRONMENT IS WHERE  
WE ALL MEET; WHERE WE ALL  
HAVE A MUTUAL INTEREST;  
IT IS THE ONE THING ALL  
OF US SHARE.”**

Lady Bird Johnson





Be aware of where snow piles up. Snow shed from converging roof pitches creates a heavy snow load—this area is best suited for durable hardscapes and minimal plantings of low-profile, snow-tolerant plants.

## SNOW LOAD + STORAGE

Snow piles from plowing, drifting, and roof shedding can cause serious damage to plants.

Evergreen trees often lose branches, lawns can develop snow mold, and shrubs are easily crushed. Observe where snow piles up—and design around it.

In heavy snow storage areas, consider using hardy wildflowers, gravel, or rock gardens to minimize damage. For areas exposed to snow load, prioritize native species with flexible branches, upright shapes, strong branch attachments, and low-growing habits—all of which are traits that help plants shed or withstand snow without breakage. However, even strong conifers can be damaged where plows stack snow or ice sheets fall from roofs—leave a minimum of 5 feet or use low vegetation near snow drop zones.

## PLANTS MORE TOLERANT TO SNOW LOADS\*

*\*Representative list—not all species noted. Maintain a minimum of 5 feet of distance between the structure and shrubs or trees.*

	COMMON NAME	BOTANICAL NAME
FLOWERS	Blanketflower	<i>Gaillardia aristata</i>
	Yarrow	<i>Achillea millefolium</i>
	Rocky Mountain Penstemon	<i>Penstemon strictus</i>
GRASSES	Idaho Fescue	<i>Festuca idahoensis</i>
	Tufted Hairgrass	<i>Deschampsia cespitosa</i>
SHRUBS	Common Snowberry	<i>Symphoricarpos albus</i>
	Serviceberry	<i>Amelanchier alnifolia</i>
	Kinnikinnick / Bearberry	<i>Arctostaphylos uva-ursi</i>
TREES	Subalpine Fir	<i>Abies lasiocarpa</i>
	Douglas Fir	<i>Pseudotsuga menziesii var. glauca</i>
	Quaking Aspen	<i>Populus tremuloides</i>
	Chokecherry	<i>Prunus virginiana</i>

## PROPER PLANTING PRACTICES

Planting in Big Sky isn't just about what you grow—it's about how you set it up from day one. Cold winters, short summers, and wildfire risk demand careful site prep, smart plant placement, and early weed control to give your landscape the best chance to establish and stay healthy with less water and maintenance.

### SEEDING

Start with quality topsoil and be prepared to control a flush of weeds with mowing or weed whacking. Use certified weed-free native seed mixes adapted for Big Sky's high elevations.

Seed in early spring or early fall to take advantage of natural moisture cycles. Water lightly and consistently until germination—too much or too little can derail early growth.

Although less effective and more water intensive, seeding in the summer is often a better alternative to letting weeds get established.

Planting in the fall allows seeds to undergo natural cold stratification, breaking dormancy and encouraging strong spring germination. Sow a few weeks before the ground freezes so seeds can settle in for winter. For best results, wait until soil temperatures drop below 50°F (typically in late October or November) to prevent premature sprouting.

During germination, water lightly but consistently. Keep soil evenly moist—like a wrung-out sponge—until seeds sprout. Avoid overwatering (this can cause rot or erosion) and don't let the soil dry out (this can stop germination). In sunny or windy spots, check moisture daily and consider a light mulch or erosion blanket to help retain moisture and protect seedlings.

### PLANT SPACING

Group plants with similar sun and water needs into hydrozones to save time and water.

#### ► 5-30 FEET FROM YOUR HOME

In the Intermediate Zone, keep a minimum of 18 feet between tree canopies. Thin trees and large shrubs to create separation. Limit trees and shrubs to small clusters of a few each to break up continuity of vegetation.

#### ► 30-60+ FEET FROM YOUR HOME

In the Extended Zone of 30-60+ feet, establish a minimum of 12 feet between tree canopies. Continue to thin vegetation, focusing on removing small, flammable trees and shrubs. Continue to limit trees and shrubs to small clusters of a few each to break up continuity of vegetation.

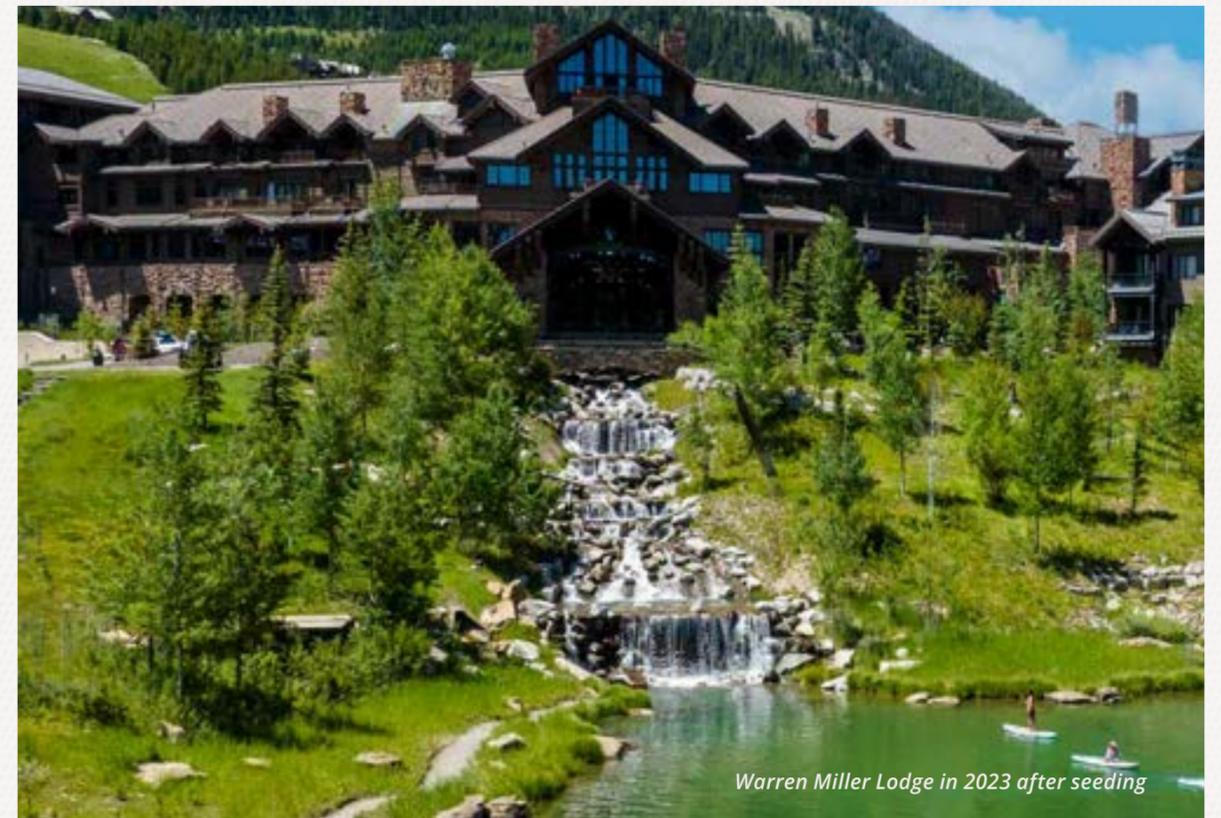
#### ► 60-100+ FEET FROM YOUR HOME

Within the Extended Zone of 60+ feet, allow a minimum of 6 feet between tree canopies.

*Photos provided by the Yellowstone Club show the before / after of the Warren Miller Lodge, pre-seeding above and post-seeding below.*



*Warren Miller Lodge in 2010 before seeding*



*Warren Miller Lodge in 2023 after seeding*

## NOXIOUS WEEDS

Pretty wildflower? Think again. Some weeds are deceptively beautiful—expert help ensures you know what’s really growing. Noxious weeds like spotted knapweed and oxeye daisy quickly outcompete native plants and reduce biodiversity. Limit soil disturbance when possible to keep seeds from taking hold. Learn to identify common noxious weeds and dispose of them. Investing in prevention up front reduces the time and cost of future weed management.



### ▲ HOUNDSTONGUE

Houndstongue is a common noxious weed in the Big Sky area that threatens forage for wildlife and livestock and is toxic. It reproduces solely by seed, with velcro-like burrs that readily attach to people, pets, and animals—bag and dispose of burrs to prevent spread.

### ◀ OXEYE DAISY

Oxeye daisy is an aggressive invasive that forms dense stands in disturbed areas, meadows, and streambanks. Its beauty often leads to neglect in management. It spreads by seed and rhizomes, with seeds remaining viable in soil for up to 39 years.

*For more detailed information on managing invasive species and noxious weeds, visit Grow Wild's Weed ID & Control Page by scanning the QR code in the Resources + Credits section.*



**MUSK THISTLE**  
*Carduus nutans*



**OXEYE DAISY**  
*Leucanthemum vulgare*



**CANADA THISTLE**  
*Cirsium arvense*



**HOUNDSTONGUE**  
*Cynoglossum officinale*



**HOARY ALYSSUM**  
*Berteroa incana*



**SPOTTED KNAPWEED**  
*Centaurea stoebe*



**POISON HEMLOCK**  
*Conium maculatum*



**CHEATGRASS**  
*Bromus tectorum*



**YELLOW TOADFLAX**  
*Linaria vulgaris*

## PLANTS TO CONSIDER

Take into consideration which plants are water-wise, firewise, and/or native to Montana, as well as their shade/sun tolerance, and be sure to group plants by their hydrozones. Water-wise plants are either drought-tolerant (DT)—no watering is required after the plant is established, approximately 2-3 years after planting—or water-smart (WS)—super resilient plants that can go long periods without water but may need some attention during/after long dry spells.

WS	DT		
WATER SMART	DROUGHT TOLERANT	FIREWISE	NATIVE TO MONTANA

## FLOWERS

COMMON NAME — BOTANICAL NAME	WATER-WISE	FIREWISE	NATIVE TO MONTANA	SHADE / SUN TOLERANCE
Anise Hyssop — <i>Agastache foeniculum</i>	WS			Full sun to partial shade
Arrowleaf Balsamorhiza — <i>Balsamorhiza sagittata</i>				Full sun
Beardtongue — <i>Penstemon</i> spp.	DT			Full sun
Beebalm / Wild Bergamot — <i>Monarda fistulosa</i>				Full sun to partial shade
Black-Eyed Susan — <i>Rudbeckia hirta</i>				Full sun
Blacksampson Echinacea / Narrow-leaf Purple Coneflower — <i>Echinacea angustifolia</i>	WS			Full sun
Blanketflower — <i>Gaillardia aristata</i>	DT			Full sun
Creeping Phlox — <i>Phlox subulata</i>				Full sun
Cut-leaf Anemone — <i>Anemone multifida</i>				Full sun
Cutleaf Daisy — <i>Erigeron compositus</i>				Full sun to partial shade
Dotted Gayfeather — <i>Liatris punctata</i>	DT			Full sun
Field Chickweed — <i>Cerastium arvense</i>				Full sun to partial shade
Fireweed — <i>Chamerion angustifolium</i>				Full sun to partial shade
Golden Tickseed — <i>Coreopsis tinctoria</i>				Full sun
Goldenrod — <i>Solidago canadensis</i>				Full sun
Hairy Clematis — <i>Clematis hirsutissima</i>				Full sun to partial shade (prefers roots shaded and tops in sun)
Harebells — <i>Campanula rotundifolia</i>	WS			Full sun to partial shade
Hens and Chicks — <i>Sempervivum tectorum</i>	DT			Full sun
Hooker's Sandwort — <i>Eremogone hookeri</i>				Full sun to partial shade
Idaho Blue-Eyed Grass — <i>Sisyrinchium idahoense</i>				Full sun to partial shade
Lavender — <i>Lavandula angustifolia</i>	WS			Full sun
Little Sunflower — <i>Helianthus pumilus</i>				Full sun
Littleleaf Penstemon — <i>Penstemon procerus</i>	WS			Full sun
Littleleaf Pussytoes — <i>Antennaria parvifolia</i>	WS			Full sun to partial shade
Lupine — <i>Lupinus argenteus</i>				Full sun to partial shade

COMMON NAME — BOTANICAL NAME	WATER-WISE	FIREWISE	NATIVE TO MONTANA	SHADE / SUN TOLERANCE
Maximilian Sunflower — <i>Helianthus maximiliani</i>				Full sun, will not tolerate shade
Meadow Arnica — <i>Arnica chamissonis</i>				Partial shade
Mountain Hollyhock — <i>Iliamna rivularis</i>	DT			Full sun to partial shade
Nettleleaf Giant Hyssop — <i>Agastache urticifolia</i>				Full sun to partial shade
Oneflower Sunflower — <i>Helianthella uniflora</i>				Full sun
Pacific Anemone — <i>Anemone multifida</i>				Full sun to partial shade
Pale Purple Coneflower — <i>Echinacea pallida</i>	WS			Full sun
Pasqueflower, Eastern — <i>Pulsatilla patens</i>	WS			Full sun
Pearly Everlasting — <i>Anaphalis margaritacea</i>	WS			Full sun to partial shade
Penstemon, Rocky Mountain — <i>Penstemon strictus</i>	WS			Full sun
Pleated Gentian — <i>Gentiana affinis</i>				Full sun to partial shade
Prairie Alumroot — <i>Heuchera richardsonii</i>	WS			Full sun to partial shade
Prairie Coneflower — <i>Ratibida columnifera</i>	WS			Full sun
Prairie Sage — <i>Artemisia ludoviciana</i>	WS			Full sun
Prairie Smoke — <i>Geum triflorum</i>	WS			Full sun to partial shade
Prairie Violet — <i>Viola pedatifida</i>				Full sun to partial shade
Purple Monkeyflower — <i>Mimulus lewisii</i> (syn. <i>Erythranthe lewisii</i> )				Full sun to partial shade
Red Columbine — <i>Aquilegia canadensis</i>	WS			Partial shade
Rocky Mountain Bee Plant — <i>Cleome serrulata</i> (syn. <i>Peritoma serrulata</i> )				Full sun
Rocky Mountain Iris — <i>Iris missouriensis</i>				Full sun to partial shade
Rosy Pussytoes — <i>Antennaria rosea</i>	WS			Full sun to partial shade
Roundleaf Alumroot — <i>Heuchera cylindrica</i>	WS			Full sun to partial shade
Scarlet Gilia — <i>Ipomopsis aggregata</i>				Partial shade
Seep Monkeyflower — <i>Mimulus guttatus</i> (syn. <i>Erythranthe guttata</i> )				Full sun to partial shade
Showy Fleabane — <i>Erigeron speciosus</i>	WS			Full sun to partial shade
Showy Goldeneye — <i>Heliomeris multiflora</i>				Full sun
Silky Lupine — <i>Lupinus sericeus</i>				Full sun
Silverleaf Phacelia — <i>Phacelia hastata</i>				Partial shade
Smooth Blue Aster — <i>Symphyotrichum laeve</i>	WS			Full sun to partial shade
Sticky Geranium — <i>Geranium viscosissimum</i>	WS			Full sun to partial shade
Stonecrop — <i>Sedum lanceolatum</i> (generic <i>Sedum</i> spp.)	WS			Full sun to partial shade
Sulfur Buckwheat — <i>Eriogonum umbellatum</i>	DT			Full sun to partial shade

COMMON NAME — BOTANICAL NAME	WATER-WISE	FIREWISE	NATIVE TO MONTANA	SHADE / SUN TOLERANCE
Thrift / Sea Pink — <i>Armeria maritima</i>				Full sun to partial shade
Western Coneflower — <i>Rudbeckia occidentalis</i>	WS			Full sun to partial shade
Western Wallflower — <i>Erysimum capitatum</i>				Full sun
Whipple Penstemon — <i>Penstemon whippleanus</i>	WS			Partial shade
Wilcox Penstemon — <i>Penstemon wilcoxii</i>	WS			Full sun
Wild Blue Flax — <i>Linum lewisii</i>	DT			Full sun
Wild Mint — <i>Mentha arvensis</i>				Full sun to partial shade (prefers moist conditions)
Woodland Strawberry — <i>Fragaria vesca</i>				Partial shade
Woolly Sunflower — <i>Eriophyllum lanatum</i>				Full sun
Yarrow — <i>Achillea millefolium</i>	WS			Full sun to partial shade
Yellow Columbine — <i>Aquilegia flavescens</i>	WS			Partial shade

## GRASSES

Different grass mixes work in different situations. Recommendations are available at [alpenscapes.org](http://alpenscapes.org).

COMMON NAME — BOTANICAL NAME	WATER-WISE	FIREWISE	NATIVE TO MONTANA	SHADE / SUN TOLERANCE
Basin Wildrye — <i>Leymus cinereus</i>	DT			Partial shade
Beaked Sedge — <i>Carex utriculata</i>				Full sun to partial shade
Blue Oatgrass — <i>Helictotrichon sempervirens</i>	WS			Full sun
Blue Wildrye — <i>Elymus glaucus</i>	WS			Full sun to partial shade
Bluebunch Wheatgrass — <i>Pseudoroegneria spicata</i>	DT			Full sun to partial shade
Canada Wildrye — <i>Elymus canadensis</i>	WS			Full sun
Elk Sedge — <i>Carex geyeri</i>				Full sun
Feather Reedgrass 'Karl Foerster' — <i>Calamagrostis xacutiflora</i>	WS			Full sun
Fescue 'Siskiyou Blue' — <i>Festuca idahoensis</i>	DT			Full sun to partial shade
Fowl Mannagrass — <i>Glyceria striata</i>				Partial shade
Green Needlegrass — <i>Nassella viridula</i>	DT			Full sun to partial shade
Idaho Fescue — <i>Festuca idahoensis</i>	DT			Full sun
Indian Ricegrass — <i>Achnatherum hymenoides</i>	DT			Full sun
Needle-and-Threadgrass — <i>Hesperostipa comata</i>	DT			Full sun to partial shade
Prairie Dropseed — <i>Sporobolus heterolepis</i>	DT			Full sun
Prairie Junegrass — <i>Koeleria macrantha</i>	DT			Full sun
Sheep Fescue — <i>Festuca ovina</i>	DT			Full sun to partial shade
Spike Trisetum — <i>Trisetum spicatum</i>				Full sun
Thickspike Wheatgrass — <i>Elymus lanceolatus</i>	DT			Full sun
Tufted Hairgrass — <i>Deschampsia cespitosa</i>	WS			Full sun to partial shade

## SHRUBS

COMMON NAME — BOTANICAL NAME	WATER-WISE	FIREWISE	NATIVE TO MONTANA	SHADE / SUN TOLERANCE
Alpine Currant 'Greenmound' — <i>Ribes alpinum</i>	WS			Full sun to partial shade
Bebb Willow — <i>Salix bebbiana</i>				Full sun
Big Sagebrush — <i>Artemisia tridentata</i>	WS			Full sun
Booth's Willow — <i>Salix boothii</i>	DT			Full sun
Bush Honeysuckle — <i>Diervilla lonicera</i>				Full sun to partial shade
Canada Buffaloberry (Russet) — <i>Shepherdia canadensis</i>				Full sun to partial shade
Common Snowberry — <i>Symphoricarpos albus</i>				Full sun to partial shade
Coyote Willow — <i>Salix exigua</i>				Full sun to partial shade
Curlleaf Mountain Mahogany — <i>Cercocarpus ledifolius</i>	DT			Full sun
Four-wing Saltbush — <i>Atriplex canescens</i>	DT			Partial shade
Fringed Sage — <i>Artemisia frigida</i>	DT			Full sun to partial shade
Geyer Willow — <i>Salix geyeriana</i>				Full sun to partial shade
Kinnikinnick — <i>Arctostaphylos uva-ursi</i>	DT			Full sun to partial shade
Mountain Mahogany — <i>Cercocarpus montanus</i>	DT			Full sun to partial shade
Mallow Ninebark — <i>Physocarpus malvaceus</i>				Partial shade
Mountain Huckleberry — <i>Vaccinium membranaceum</i>	WS			Full sun to partial shade
Mountain Big Sage — <i>Artemisia tridentata</i> subsp. <i>vaseyana</i>				Full sun
Mountain Sagebrush — <i>Artemisia arbuscula</i>				Full sun
Mountain Snowberry — <i>Symphoricarpos oreophilus</i>	WS			Full sun to partial shade
Red Elderberry — <i>Sambucus racemosa</i>				Full sun to partial shade
Rose Meadowsweet — <i>Spiraea splendens</i>				Full sun
Rubber Rabbitbrush — <i>Ericameria nauseosa</i>	WS			Full sun
Silver Sagebrush — <i>Artemisia cana</i>				Full sun
Serviceberry — <i>Amelanchier alnifolia</i>				Full sun to partial shade
Shrubby Cinquefoil — <i>Dasiphora fruticosa</i> (syn. <i>Potentilla fruticosa</i> )				Full sun to partial shade
Silverberry — <i>Elaeagnus commutata</i>	DT			Full sun to partial shade
Thimbleberry — <i>Rubus parviflorus</i>	DT			Full sun to partial shade
Woolly Thyme — <i>Thymus pseudolanuginosus</i>	DT			Full sun
Wax Currant (Squaw Currant) — <i>Ribes cereum</i>	WS			Full sun to partial shade
Winterfat — <i>Krascheninnikovia lanata</i>	DT			Full sun
Woods Rose — <i>Rosa woodsii</i>	DT			Partial shade



## OVERALL MAINTENANCE + UPKEEP

A healthy, resilient landscape doesn't happen by accident. Regular maintenance is essential to protect your home, save water, and keep your landscape in sync with Big Sky's ecosystem.

### FIRE MITIGATION

#### ▶ DEAD FUELS

Clear dead fuels, prune trees, space plants, and remove ladder fuels to slow fire spread.

#### ▶ HARDSCAPES

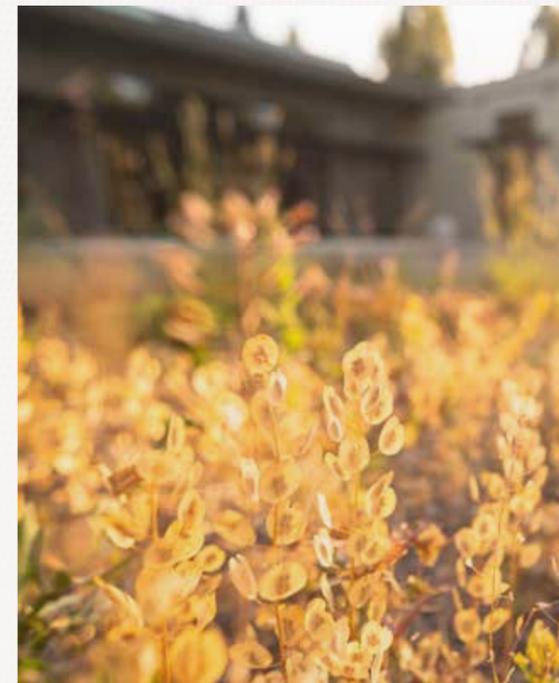
Use hardscapes to create firebreaks—paths, patios, retaining walls, permeable pavers.

#### ▶ CLEARANCE AND SPACING

Prune trees to keep branches 6-8 feet off the ground, remove ladder fuels, and maintain plant spacing.

#### ▶ NATIVE PLANTS

Plant fire-resistant native plants that have a lower risk of ignition.



### WEED MANAGEMENT

#### ◀ MANAGE DISTURBANCE

Disturbed soil from construction, renovations, or even snow plowing can introduce noxious weeds. Evaluate your property and manage weeds, especially when there has been a recent disturbance.

Effective management starts with knowing what's growing—schedule a free site visit for accurate identification and tailored control strategies. As shown in the photo on the left, field pennycress (*Thlaspi arvense*) is a nuisance weed—not a regulated noxious weed—and is often the first annual to appear in disturbed areas. Mowing before seeds mature and disperse is the most effective control and helps desirable plants thrive.

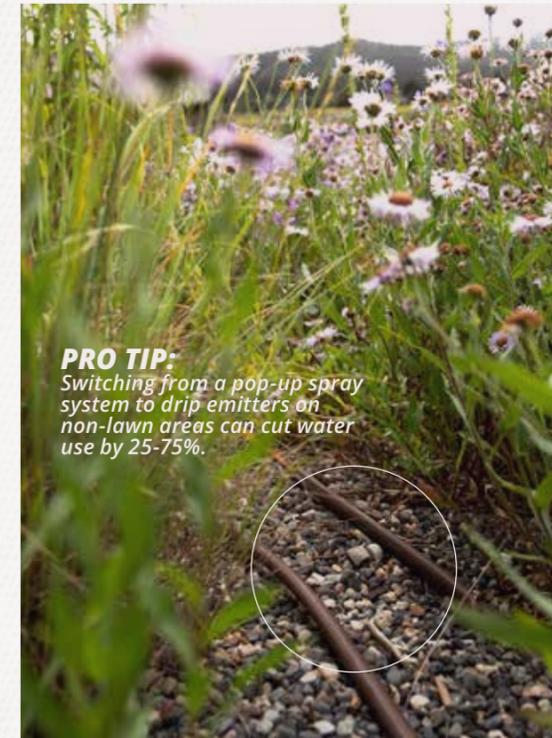
## WATER EFFICIENCY

### WATERING SCHEDULE

Water early in the morning before 10 am, when needed. Adjust schedules with the seasons and weather conditions, and avoid watering sidewalks or roads to prevent runoff.

### DRIP IRRIGATION

Use drip irrigation to deliver water directly to the roots and reduce water loss.



**PRO TIP:**  
Switching from a pop-up spray system to drip emitters on non-lawn areas can cut water use by 25-75%.



**DO:**  
Irrigation is set to spray only on grass. Many brands allow you to set your sprinklers in half, or even quarters to prevent overspray!

### IRRIGATION CONTROLLER

Install a weather-based smart controller that automatically adjusts your watering schedule based on local weather conditions.

### PREVENT RUNOFF

Shorten water times and split sessions to keep water from carrying nutrients and pollutants into streams and rivers.

TYPE	RATE
Drip	0.5-4 gallons/hour
Hose	2-5 gallons/minute
Pop-Up Spray Head	1.5-2 inches per hour
Rotor Head	0.5 inches per hour

### HAND WATER SMALL AREAS

Avoid over-watering the surrounding landscape by hand watering pots and decorative beds.

### WINTERIZE IN THE FALL

Properly preparing and maintaining your system for the winter months will decrease your likelihood of having challenges during the rest of the year.

### CHECK SYSTEMS

Regularly maintain and inspect drip and smart controllers for leaks. Drips can get clogged with sediment, and spray heads can drift out of alignment.



**DON'T:**  
Irrigation is spraying/running off into pavement.

## RESOURCES + CREDITS

### ADDITIONAL RESOURCES

Looking for more? Visit [alpenscapes.org](http://alpenscapes.org) or scan the QR Code to access our best practices, plant database, local suppliers, plus rebates and services, or sign up for one of our free site visits to assess your property.



### SEE ALPENSAPES IN ACTION

Want to see these practices in action? Visit Crail Gardens and its new Firewise Crevice Garden, the Moose Pair Pollinator Garden at Ousel Falls Trailhead, and other Grow Wild demonstration sites. Follow us on Instagram and Facebook @alpenscapes for additional inspiration and updates.

### SPECIAL CONTRIBUTORS

This guidebook was made possible through the contributions of multiple individuals and businesses including: Micah Berman, Blanchford Design, Jeff Cadry, Rich Chandler, the Dreisbachs, the Karls, the Kristula-Greens, the Pickens, Lizzie Peyton, Whitney Kamman, the Gunthers, NFPA, Yellowstone Club, Indigo West, and Wildwood Nursery.

### THE ALPENSAPES PARTNERS

Alpenscapes is a partnership formed by four existing Big Sky organizations based on the belief that landscapes can be both beautiful and beneficial to the environment.

### OUR SPONSORS

Special thanks for the continued support from the Moonlight Community Foundation, Yellowstone Club Community Foundation, Big Sky Resort Area District, and funding from the Western States Fuels Reduction Grant.



### BIG SKY FIRE DEPARTMENT

The Big Sky Fire Department (BSFD) is devoted to protecting the lives and property of our community, our visitors, and our neighbors. The BSFD performs building and development plan review and inspection, fire prevention and fire safety education and assists the community by providing defensible space education for properties in our wildland urban interface environment.



### GROW WILD

Grow Wild works to conserve native species in the Upper Gallatin Watershed through education, habitat restoration, and collaborative land stewardship. Since 2014, Grow Wild has assisted more than 1,100 landowners across 13,000+ acres, providing tools and resources to manage noxious weeds, conserve native plants, and restore ecological health.



### GALLATIN RIVER TASK FORCE

The Gallatin River Task Force (GRTF) leads conservation efforts to protect, restore, and inspire stewardship of the Gallatin River. Since 2016, the GRTF's Big Sky Water Conservation Program has helped residents and businesses actively engage in water conservation saving over 20.2 million gallons of water.



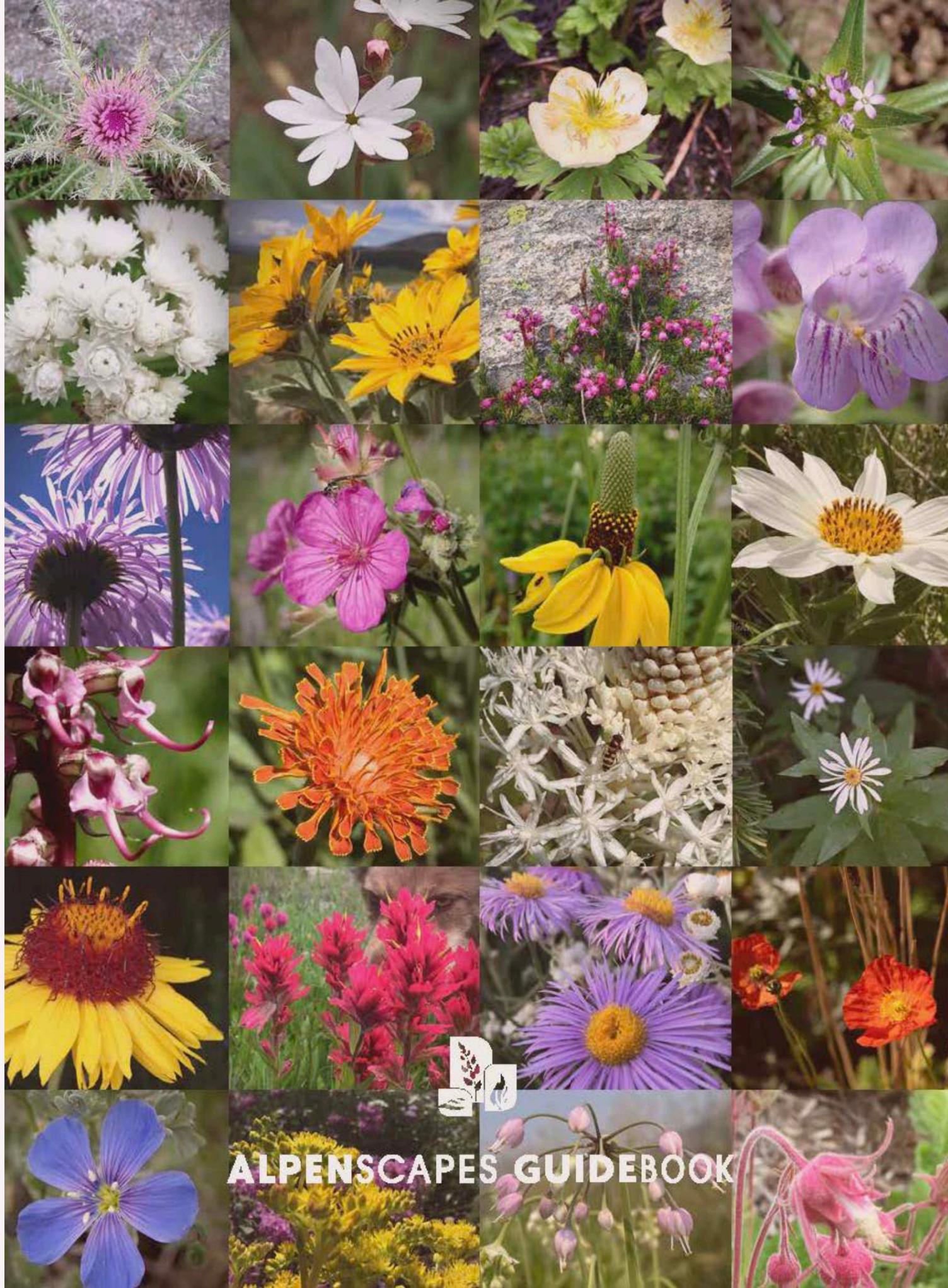
### BIG SKY SNO

Big Sky SNO (Sustainability Network Organization) works on identifying sustainability issues in several key components of everyday life in Big Sky, looking for solutions to both big and small challenges that we face as a dynamic growing community.

**“IF YOU TRULY LOVE NATURE,  
YOU WILL FIND BEAUTY  
EVERYWHERE.”**

Vincent van Gogh





**ALPENSAPES GUIDEBOOK**