

Waterwise Landscaping in the Intermountain West



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Why a Waterwise Landscape?

Growing up in southern Nevada, I'm well acquainted with the desert landscape. My grandmother loved the desert plants and had a firm belief in the beauty of the harsh landscape that many people might refer to as a lump of sand. Nevada is generally acknowledged as the driest state in the nation, with Utah as the second. When I moved to Utah for schooling, I teased people who thought Utah was a desert. The lush landscape seemed too green to be in the same category as the red mesas of my childhood. Utah has a wonderful variety of water savvy plants that grow rampant in our canyons and natural landscapes. This landscape is contrasted by the Utah obsession with lawns. It seems that the idea of the ideal yard in Utah is a simple emerald green lawn stretching across every inch of the property, broken up by maybe one or two trees.

With the ever-present threat of climate change, the lawn is not only impractical, but often an eyesore. The summer of 2021 was a particularly dry one. Government agencies urged Utahns to limit the watering of their lawn while continuing to keep their trees alive by watering them separately. Yards across the state turned a dry yellow that I was very familiar with. I couldn't help but look at the surrounding canvons and see how the native

plants still thrived through the drought.

USU Extension estimates that 65% of potable water is used to hydrate lawns and landscapes. The Utah Division of Water Resources declared that the average Utah resident uses 182 gallons of water every day. Over the course of a year, that tallies quickly to over 66,000 gallons a year for each person. Utah is home to over 3.2 million people, accounting for over 212 billion gallons of water. In comparison, Utah receives an average of 13 inches of rainfall annually, with the northern parts of the landscape getting more, and the southern parts being drier. Not all of that rain goes into our potable water

reserves. There is a need for Utah homes to become more waterwise and preserve our resources.

To motivate Utah homeowners to transform their vards into waterwise landscapes, the Water Conservancy District has put programs in place to award residents money for converting their lawns into a waterwise landscape. The most notable is the "Flip Your Strip" initiative. "Flip Your Strip" reimburses Utahns \$1.25 per square foot of lawn that they design and replant to be water conservative. Redoing a vard can save between 3,000 to 8,000 gallons of water a year. Multiplying that by the Utah population, water

wise landscaping would save more than 3 billion gallons of water.

This project is focused around introducing waterwise landscaping in the way it is meant to be seen. Many people think that a water conserving landscape is a gravel lawn with a spindly bush in the front. It isn't hard to see why the concept of a waterwise yard would be unattractive to most Utahns. However, a waterwise landscape can be full of life, color, and texture.

The larger struggle is teaching people how to care for their new waterwise landscape. Utah State University's Extension gives a clear guideline of best planting practices when planting a new landscape and caring for it after it is established. The first begins by choosing plants well adapted to Utah's native climate. This booklet contains a list of some of these plants, though it isn't an exhaustive list. There are thousands of possibilities, but these plants are popular and usually easy to find in a local nursery. Different plants bloom at different times and have interest at different times of the year. Choose a variety of blooming seasons and stagger them so that your vard has something beautiful going on all the time.

Next, plant your yard in hydrozones. Not all plants require the same amount of water. The danger that most yards face is all the plants being given the same amount of water. Some plants would drown. and some would be dying of thirst, leaving the homeowner baffled and confused about why all their plants are dving. All the plants in this booklet have been broken up into 'very low', 'low', and 'medium' water usage hydrozones. When planting.

Many people think that a water conserving landscape is a gravel lawn with a spindly bush in the front...However, a waterwise landscape can be full of life, color, and texture.

group plants of similar water usage together and adapt the amount of water they receive to fit their needs. Another way to prevent this is using a dripline system to deliver a set amount of water at the base of each plant.

In 2022, NOAA National Centers for Environmental Information released State Climate Summaries. They pointed out that the climate in Utah is getting hotter. They say, "Temperatures in Utah have risen more than 2.5°F since the beginning of the 20th century." With heat comes a greater amount of evaporation. To prevent losing moisture due to the sun, it is important to water less frequently. USU Extension says to water just before you water deprivation damage is evident in your plants. Another excellent way of preventing excess evaporation is to place 3 to 4 inches of mulch in your planting areas. Both organic mulch (wood chips. pine needles, etc.) and inorganic mulch (gravel, glass, etc.) work effectively

The Utah lawn, despite its flaws, does have a practical purpose in entertaining and enjoying outdoor spaces.

to cover the ground and prevent water loss.

The third trick to relandscaping your yard is design. Every family and household has different needs and priorities. The Utah lawn, despite its flaws, does have a practical purpose in entertaining and enjoying outdoor spaces. However, corner to corner lawn is inefficient and means more mowing. The best practice is to sketch out a lawn space in the area of your lawn that gets some sun coverage. Make sure to plant shade loving plants in the areas that get shade, and trees on the East or West sides of your home to cool your house in the summer months. Surrounding a lawn area

with beautiful plants tends to emphasize the lawn and make it appear lusher and more impressive than having a lawn across the entire plot. The lawn is usually the area of a yard that requires the most water, and so should be treated as the jewel of the yard rather than the default option.

A waterwise landscape is not too hard to install and, although it does require some degree of maintenance, could be the key to eliminating some of the water waste that exists in our communities. However, it is up to individuals living in affected areas to make the changes and preserve the Utah landscape and resources for future generations.

Terminology

Deciduous - Losing leafs during colder seasons

Evergreen - Keeping leaves and needles throughout the year

Perennials- Flowers that bloom from plants and bushes the lives and reblooms for more than two years

Ornamental Grasses- Tall and bush like grasses

Vines - growing vertically along trellises and walls.

Ground Cover- Grows horizontally low along the ground

Full Sun

Part Sun

○ Shade

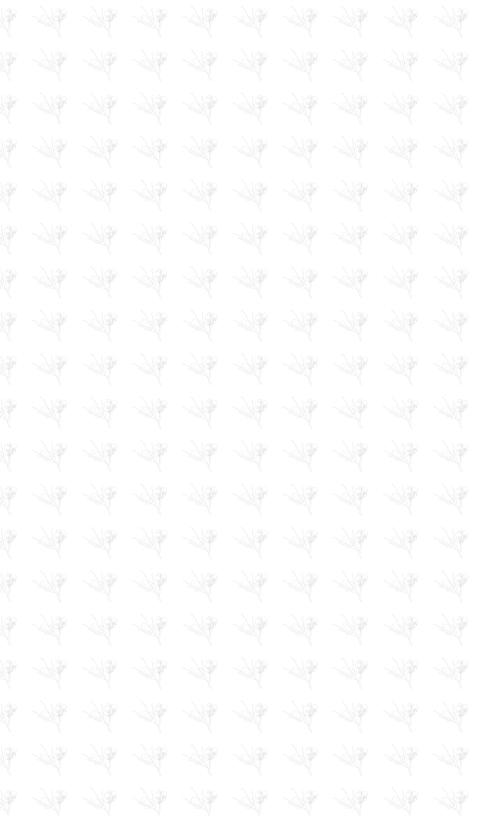
Very Low Water Use - 0 gallons per square foot

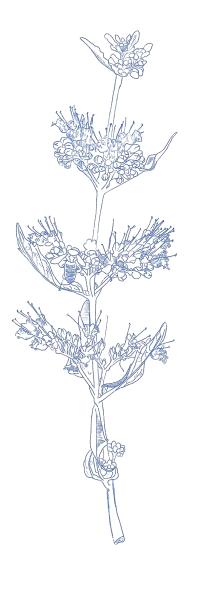
 $\begin{tabular}{ll} Low~Water~Use - 3~gallons~per\\ square~foot \end{tabular}$

 $Medium\ Water\ Use$ - 10 gallons per square foot

Water needs may vary from plant to plant and some may require more water in the summer.

USDA Hardiness Zones are determined based on the temperatures in the region. Most of Utah falls in zones 4-8.





Deciduous Shrubs

Very Low Water Usage			USDA HARDINES ZONE	BLOOMING SS SEASON	BLOOM COLOR	MAXIMUM WIDTH (FT)	MAXIMUM HEIGHT (FT)
Tall Blue Rabbitbrush	Chrysothamnus nauseosus 'Tall Blue'		4-9	Late	Yellow	6	6
Lacy Buckwheat	Eriogonum corymbosum		3-6	Late	Variable	4	4
Apache Plume	Fallugia paradoxa		3-9	Mid	White	5	5
Matchbrush	Gutierrezia sarothrae		4-9	Mid-Late	Yellow	2	2
Red Yucca	Hesperaloe parvifolia		5-10	Mid-Late	Red	4	4
Low Water Usage							
Waxflower	Jamesia americana	\bigcirc	3-6	Early-Mid	White	6	4
Cheyenne Mockorange	Philadelphus lewisii 'Cheyenne'		3-8	Early-Mid	White	9	8
Leadplant	Amorpha canescens		4-8	Mid-Late	Purple	4	3
Utah Mountain-Lilac	Ceanothus martinii	•	3-6	Early-Mid	White	3	5
Alderleaf Mountain Mahogany	Cercocarpus montanus		3-6	Early-Mid	Pink	6	6
Fernbush	Chamaebatiaria millefolium		4-9	Mid-Late	White	5	5
Squaw Apple	Peraphyllum ramosissimum		3-6	Early	White	5	5
Sand Cherry	Prunus besseyi		3-8	Early	White	6	6
Dwarf Smooth Sumac	Rhus glabra var. Cismontana		3-6			5	4
Squawbush	Rhus trilobata		4-7			4	6
Woods' Rose	$Rosa\ woodsii$	•	3-6	Mid	Pink	6	5
Germander	Teucrium chamaedrys	•	4-10	Mid-Late	Pink	1	2

5-9

Mid-Late

Blue

15

15



Blue Mint Bush

 ${\it Zisophora\ clinopodioides}$

N/ 1° XX/ II .			USDA HARDINES	BLOOMING S SEASON	BLOOM COLOR	MAXIMUN WIDTH (F		IAXIMUM EIGHT (FT)
Medium Water Usage			ZONE	M: 1 T - 4 - \$7 - 11 -			0	_
Pygmy Peashrub	Caragana pygmaea		3-7	Mid-Late Yellow			3	5
Blue Mist Spirea	Caryopteris x clandonensis 'Longwood Blue'		5-9	Mid-Late Blue			4	5
Snowbrush Ceanothus	Ceanothus velutinus		3-6	Early-Mid	White		6	6
Smoketree	Cotinus coggygria		4-9	Early-Mid	Pink		15	10
Spreading Cotoneaster	Cotoneaster divaricatus		4-7	Early-Mid	White/Pin	k	6	8
Carol Mackie Daphne	Daphne x burkwoodii 'Carol Mackie'		4-8	Early	Pink		3	4
Mountain Spray	Holodiscus dumosus		3-6	Mid	White		12	10
Mountain Hollyhock	Iliamna rivularis		3-6	Mid-Late	Pink		6	4
Twinberry	Lonicera involuncrata	\bigcirc	3-6	Early	Yellow/Pin	nk	9	10
Little Leaf Mockorange	Philadelphus microphylla		4-10	Early-Mid	White		6	4
Mallow-Leaved Ninebark	Physocarpus malvaceaus	\bigcirc	2-5	Early-Mid	White/Pin	k	6	4
Ninebark	Physocarups opulifolius		2-8	Early-Mid	White		8	6
Shrubby Cinquefoil	Potentilla fruticosa		2-7	Mid	Yellow		4	4
Purple-Leaf Sand Cerry	Prunus x cistena		2-8	Early	White		10	8
Chokecherry	Prunus viginiana		2-6	Early	White		15	10
Staghorn Sumac	Rhus typhina		3-9				15	10
Alpine Currant	Ribes alpinum		2-7	Early	Green-Ye	llow	6	6
Golden Currant	Ribes aureaum		3-6	Early	Yellow		6	5
Redleaf Rose	Rosa glauca		2-8	Early-Mid	Pink		6	5
Rugosa Rose	Rosa rugosa		3-7	Mid-Late	Variable		6	6
Silver Buffaloberry	Shepherdia argentea		3-9				12	10
Rock Mountain Ash	Sorbus scopulina		2-5	Mid	White		10	8
Coralberry	Symphoricarpos orbiculatus		2-7	Mid	Pink/Whi	te	5	8
Mountain Snowberry	Symphoricarpos oreophilus		3-6	Mid	White/Pin	k	5	5
Dwarf Snowberry	Symphoricarpos x chenaultii 'Hancock'		4-7	Mid	Pink		2	1
Cranberry Bush	Viburnum trilobum		2-7	Early-Mid	White		10	12



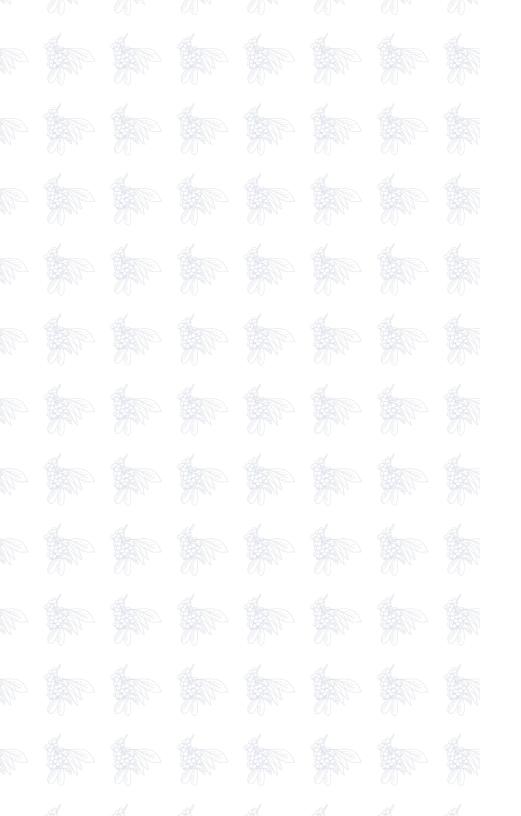


Evergreen Shrubs

Very Low Water Usage			USDA HARDINES ZONE	BLOOMING SS SEASON		AXIMUM DTH (FT)	MAXIMUM HEIGHT (FT)	
Fringed Sagebrush	Artemisia figida		3-10	Mid-Late	Yellow	2	1.5	
Curl-Leaf Mountain Mahogany	Cercocarpus ledifolius		3-10	Early	Pink	12	12	
Rubber Rabbitbrush	Chrysothamnus nauseosus		4-8	Mid	Yellow	7	7	
Yellow Rabbitbrush	Chrysothamnus viscidiflorus		3-8	Mid	Yellow	5	3	
Smooth Sumac	Rhus glabra		5-8	Early-Mid	Green/Yellov	v 15	1	
Threeleaf Sumac	Rhus trilobata		4-8	Early	Green/Yellov	v 6	6	
Sand Sagebrush	Artemisia filifolia		4-8	Mid-Late	Yellow	4	3	
Black Sagebrush	Artemisia nova		3-6	Mid-Late Y	ellow	2	2	
Fourwing Saltbrush	Atriplex canescens		2-10	Mid	Yellow/Brow	n 4	6	
Shadscale	Atriplex confertifolia		3-6	Early-Med	Inconspicous	3	3	
Winterfat	Krascheninnikovia lanata		2-7	Mid	White	2.5	5 2.5	
Mormon Tea	Ephedra viridis		3-8	_	_	4	4	
Utah Holly	Mahonia fremontii		3-6	Early-Mid	Yellow	5	5	
Cliffrose	Purshia mexicana		4-7	Early	Yellow	5	4	
Roundleaf Buffaloberry	Shepherdia rotunifolia		5-9	Early-Mid	Yellow	6	6	

Low Water Us	sage
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Greenleaf Manzanita	Arctosaphylos		2-6	Early-Late	Pink	6	1
Big Sagebrush	Artemisia tridenta		4-9	Mid-Late	Yellow	5	5
Little-Leaf Mountain Mahogany	Cercocarpus intricatus		4-7	Early	Pink	5	4
Dwarf Rockspray Cotoneaster	Cotoneaster microphyllus var. Thymifolius		5-11	Early-Mid	White	2	4
Singleseed Juniper	Juniperus squamata Blue Star		4-8	_	_	3	4
Slowmound Mugo Pine	Punus mugo 'Slowmound'	•	2-7	_	_	3	3
Antelope Bitterbrush	Purshia tridentata		3-6	Early	Yellow	8	6





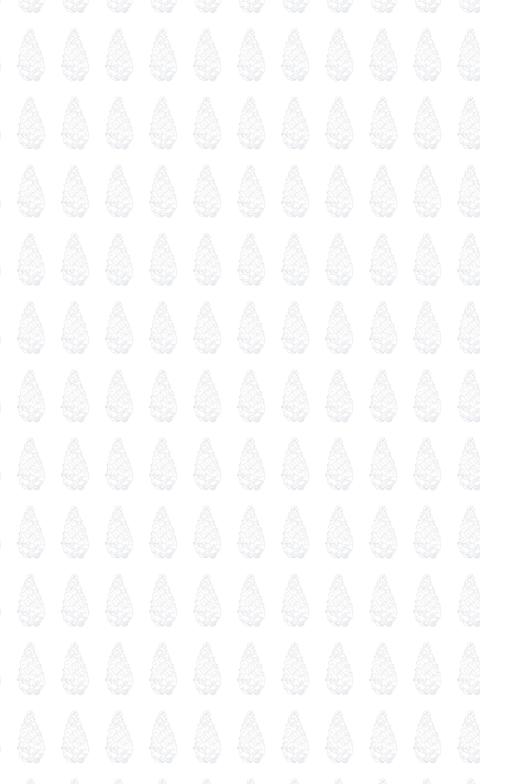
Deciduous Trees

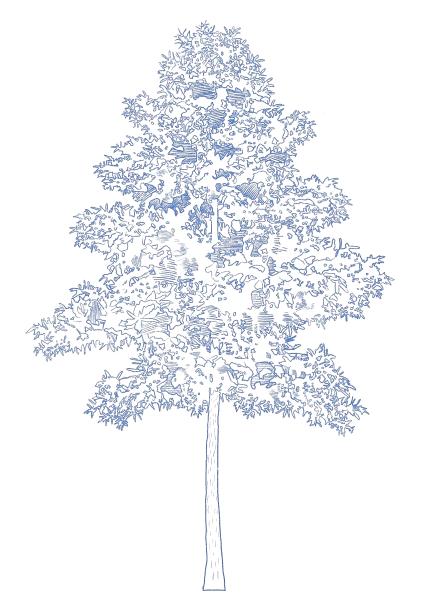
Low Water Usage		USDA HARDINES ZONE	BLOOMING SS SEASON	BLOOM COLOR	MAXIMUM WIDTH (FT)	MAXIMUM HEIGHT (FT)
Utah Serviceberry	Amelanchier utahensis	3-8	Early	White	12	10
Gambel Oak	Quercus gambelii	4-8	_	_	30	15
Bur Oak	Quercus macrocarpa	2-8	_	_	75	70
Chinkapin Oak	Quercus muehlenbergii	4-7	_	_	50	50
New Mexico Locust	Robinia neomexicana	5-9	Mid	Pink	10	6
Lacebark Elm	Ulmus parvifolia	4-9	_	_	50	50
Japanese Zelkova	Zelkova serrata	5-8	_	_	60	60
Bailey Compact Amur Maple	Acer ginnala 'Bailey'	3-8	_	_	10	10
Flame Amur Maple	Acer ginnala 'Flame'	2-8	_	_	20	20
Bigtooth Maple	Acer grandidentatum	3-6	_	_	30	25
Tatarian Maple	Acer tataricum	3-8	_	_	25	20
Netfleaf Hackberry	Celtis reticulata	4-9	_	_	30	20
Desert Willow	Chilopsis linearis	6-10	Early-Mid	Pink	30	20
Chitalpa	x Chitalpa tashkentensis	6-10	Mid	Pink	30	30
Douglas Hawthorn	Crataegus douglasii	2-8	Early	White	12	10
Desert Olive	Forestiera neomexicana	5-9	_	_	10	8
Singleleaf Ash	Fraxinus anomala	6-9	_	_	12	12
Maidenhair Tree	Ginkgo biloba	3-9	_	_	50	30
Kentucky Coffeetree	Gymnocladus dioicus	3-8	Early	Cream	60	40
Goldenraintree	Koelreuteria paniculata	5-9	Mid	Yellow	35	40
Osage-Orange	Maclura pomifera	4-9	_	_	40	40





Medium Water Usage			USDA HARDINES ZONE	BLOOMING S SEASON		MAXIMUM WIDTH (FT)		XIMUM IGHT (FT)
Hedge Maple	Acer camperstre		4-8	_	_		30	30
Shantung Maple	Acer truncatum		4-8	_	-		25	20
Saskatoon Serviceberry	Amelanchier alnifolia	•	3-8	Early	White		12	10
Western Catalpa	Catalpa speciosa		4-9	Mid	White		60	40
Common Hackberry	Celtis occidentalis		2-9	_	_		50	40
Turkish Filbert	Corylus colurna		4-8	_	_		50	25
Braeburn Apple	Malus 'braeburn'		5-8	Early	White		15	15
Chokecherry	Prunus virginiana		2-6	Early	White		20	15
Japanese Tree Lilac	Syringa reticulata		3-8	Early-Mid	White		30	20



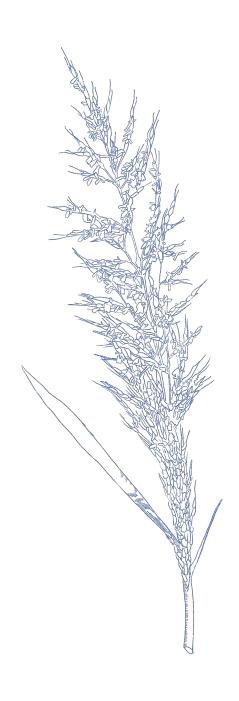


Evergreen/Conifer Trees

Very Low Water Usage				BLOOM COLOR	MAXIMUM WIDTH (FT)	MAXIMUM HEIGHT (FT)
Utah Juniper	Juniperus osteosperma		3-7		100	20
Low Water Usage						
White Fir	Abies concolor		3-7		35	15
Incense-Cedar	Calocedrus decurrens		5-8		30	35
Arizona Cypress	Cupressus arizonica		7-9		30	15
Rocky Mountain Juniper	Juniperus scopulorum		3-7		60	40
Pinyon Pine	Punis edulis		4-8		25	20
Bristlecone Pine	Pinus longaeva (aristata)		2-6		25	15
Singleleaf Pinyon	Pinus monophylla		5-9		60	30
Austian Pine	Pinus nigra		4-7		80	40
Ponderosa Pine	Piunus ponderosa		3-7		70	30
Scots Pine	Pinus sylvestris		2-8		80	25
Medium Water Usage						
Blue Atlas Cedar	Cedrus atlantica 'Glauca'		6-9		90	15
Cedar Of Lebanon	Cedrum libani		5-7		60	30
Blue Spruce	Picea pungens	•	2-7		60	50
Limber Pine	Pinus flexilis		2-7		40	20
Vanderwolf's Pyramid Limber Pine	Pinus flexilis Vanderwolf's Pyra-		4-7		20	10
Bosnian Pine	mid' Pinus heldreichii var.		5-10		20	15
Douglas Fir	Leucodermis Pseudotsuga menziesii		2-5		80	30

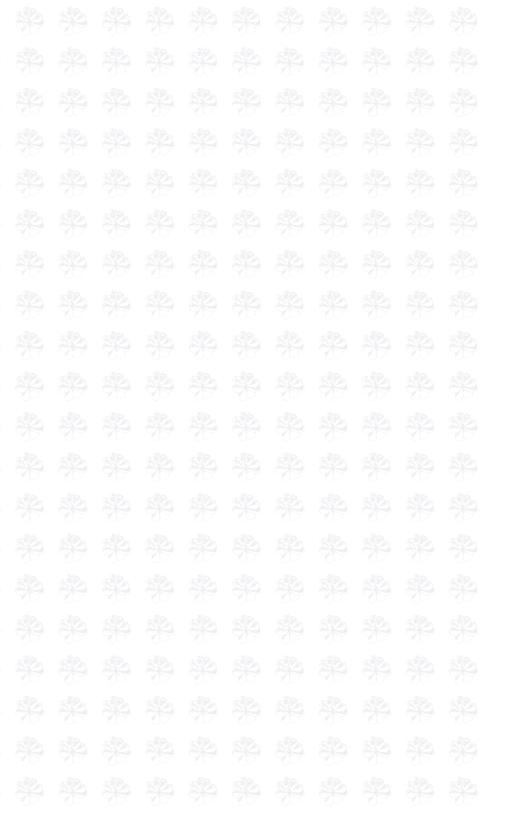


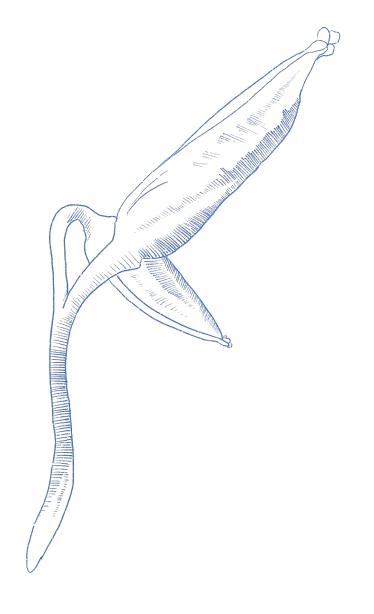




Ornamental Grasses

Desert Noodlegrass	Very Low Water Usage			USDA HARDINES ZONE	BLOOMING SS SEASON	BLOOM COLOR	MAXIMUM WIDTH (FT)		XIMUM GHT (FT)
Low Water Usage Dadrough Personal Properties Date		Achnatherum speciosum	- A V	5-10	Mid	Seedhead	2		2
Indian Ricograss	Purple Threeawn	Aristida purpurea		5-10	Mid-Late	Seedhead	2		2
Indian Ricegrass	Needle-and-thread Grass	Hesperostipa	•	3-8	Early-Mid	Seedhead	4		2
Indian Ricegrass	I W/- 4 IV		waa M						
Big bluestem Andropogon gerardii • 2-8 Mid-Late Seedhead 6 4 Sidocates Grama Bouteloua curtipendula • 2-8 Mid-Late Seedhead 3 2 Timber oatgrass Danthonia intermedia • 3-8 Mid Seedhead 1.5 1.5 Junegrass Koeleria maerantha • 3-9 Mid Seedhead 2 1 Great Basin wildrye leymus cinereus • 2-8 Early-Mid Seedhead 5 3 Mexican feather grass Nassella tenuissima • 7-11 Mid-Late Seedhead 3 2 Bluebunch wheatgrass Pseudoroegneria spicata • 3-9 Mid Seedhead 3 2 Little bluestem Schizachyrium scoparium • 3-9 Mid-Late Seedhead 3 2 Little bluestem Schizachyrium scoparium • 3-9 Mid-Late Seedhead 6 2 Indiangrass Sorghastrum nutans • 4-9 Mid-Late Seedhead 6 2 Medium Water Usage Feather Reed Grass Calamagrostis x acutiflora 'Avalanche' Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster' Tufted Hairgrass Deschampsia caespitosa • 4-9 Mid-Late Seedhead 5 2-5 Feat Urchin Blue Fescue Festuca idahoensis • 4-9 Mid-Late Seedhead 7.5 1 Idsho Fescue Festuca coina var. glauca • 4-8 Mid Seedhead 1 1 1.5 Seed Urchin Maiden-Hair Grass Misconthus sinensis 'Yaku Jima Misconthus sinensis 'Yaku Jima Maiden-Hair Grass Misconthus sinensis 'Yaku Jima Misconthus sinensis 'Yaku Jima Misconthus sinensis 'Yaku Jima Misc	3	Achnatherum hymedoides		3-8	Mid-Late	Seedhead	$_2$		2
Sideoates Grama Boutelous curtipendula 2.8 Mid-Late Seedhead 3.2 Timber oatgrass Dounthouis intermedia 0.3-8 Mid Seedhead 1.5 1.5 Junegrass Koeleria macrantha 0.3-9 Mid Seedhead 2.1 Great Basin wildtye leymus cinereus 0.2-8 Early-Mid Seedhead 0.3-9 Mid Seedhead 0.3-9 Mid-Late Seedhead									
Timber oatgrass Danthonia intermedia									
Junegrass Koeleria macrantha		-							
Great Basin wildrye leynus cinereus 2-8 Early-Mid Seedhead 5 3 Mexican feather grass Nassella tenuissima 0 7-11 Mid-Late Seedhead 3 2 Bluebunch wheatgrass Pseudoroegneria spicata 0 3-9 Mid Seedhead 3 2 Little bluestem Schizachyrium scoparium 0 3-9 Mid-Late Seedhead 3 2 Indiangrass Sorghastrum nutans 0 4-9 Mid-Late Seedhead 6 2 Medium Water Usage Feather Reed Grass Calamagrostis x acutiflora 'Avalanche' Anache' Seedhead 5 2 Lanche Seedhead 5 2 Lanche Seedhead 5 2 Late Seedhead 5 2 Sea Urchin Blue Fescue Festuca glauca 'Sea Urchin' 0 4-9 Mid-Late Seedhead 3 2 Sea Urchin Blue Fescue Festuca idahoensis 0 2-8 Mid Seedhead 2 2 Blue Fescue Festuca ovina var. glauca 0 4-8 Mid Seedhead 1 1.5 Yaku Jima Maiden-Hair Grass Miscanthus sineusis									
Mexican feather grass Nassella tenuissima Pseudoroegneria spicata Schizachyrium scoparium Mid-Late Seedhead									
Bluebunch wheatgrass									
Little bluestem Schizachyrium scoparium	-								
Medium Water Usage Feather Reed Grass Calamagrostis x acutiflora 'Avalanche' Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster' Tufted Hairgrass Deschampsia caespitosa Deschampsia vaespitosa Sea Urchin Blue Fescue Festuca idahoensis Festuca idahoensis Festuca ovina var. glauca Miscanthus sinensis 'Yaku Jima Maiden-Hair Grass Miscanthus sinensis 'Yaku Jima Maiden-Hair Grass Mid-Late Seedhead 6 2 2 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Bluebunch wheatgrass	Pseudoroegneria spicata	•	3-9	Mid	Seedhead	3		2
Medium Water Usage Feather Reed Grass Calamagrostis x acutiflora 'Avalanche' 5-9 Mid-Late Seedhead 5 2 Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster' 5-9 Early-Late Seedhead 5 2.5 Tufted Hairgrass Deschampsia caespitosa 0 4-9 Mid-Late Seedhead 3 2 Sea Urchin Blue Fescue Festuca glauca 'Sea Urchin' 0 4-9 Mid-Late Seedhead .75 1 Idaho Fescue Festuca idahoensis 0 2-8 Mid Seedhead 2 2 Blue Fescue Festuca ovina var. glauca 4-8 Mid Seedhead 1 1.5 Yaku Jima Maiden-Hair Grass Miscanthus sinensis 'Yaku Jima' 5-9 Late Seedhead 4 4	Little bluestem	Schizachyrium scoparium		3-9	Mid-Late	Seedhead	3		2
Feather Reed Grass Calamagrostis x acutiflora 'Avalanche' Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster' Tufted Hairgrass Deschampsia caespitosa Deschampsia caespitosa Sea Urchin Blue Fescue Festuca glauca 'Sea Urchin' 1 4-9 Mid-Late Seedhead 75 1 Idaho Fescue Festuca idahoensis 2 2 Blue Fescue Festuca ovina var. glauca Miscanthus sinensis 'Yaku Jima' Miscanthus sinensis 'Yaku Jima' Parisine reinster to re	Indiangrass	Sorghastrum nutans	•	4-9	Mid-Late	Seedhead	6		2
Feather Reed Grass Calamagrostis x acutiflora 'Avalanche' Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster' Tufted Hairgrass Deschampsia caespitosa Desc	Medium Water Usage								
Karl Foerster Feather Reed Grass Calamagrostis x acutiflora 'Karl Foerster' Tufted Hairgrass Deschampsia caespitosa Descha				5-9	Mid-Late	Seedhead	. 5		2
Tufted Hairgrass Deschampsia caespitosa Deschampsia	Karl Foerster Feather Reed Grass	Calamagrostis x acutiflora 'Karl	•	5-9	Early-Late	Seedhead	5		2.5
Idaho Fescue Festuca idahoensis D 2-8 Mid Seedhead 2 2 Blue Fescue Festuca ovina var. glauca 4-8 Mid Seedhead 1 1.5 Yaku Jima Maiden-Hair Grass Miscanthus sinensis Yaku Jima' Pari interviews interviews	Tufted Hairgrass			4-9	Mid-Late	Seedhead	3		2
Blue Fescue Festuca ovina var. glauca 4-8 Mid Seedhead 1 1.5 Yaku Jima Maiden-Hair Grass Miscanthus sinensis Yaku Jima' Province sinensis	Sea Urchin Blue Fescue	Festuca glauca 'Sea Urchin'	•	4-9	Mid-Late	Seedhead	7	5	1
Yaku Jima Maiden-Hair Grass Miscanthus sinensis Yaku Jima' Parimenting the Seedhead 4 4 Yaku Jima' Parimenting the Seedhead 4 4	Idaho Fescue	Festuca idahoensis		2-8	Mid	Seedhead	. 2		2
Yaku Jima' Pari and silina Malueli-Hali Grass Yaku Jima'	Blue Fescue	Festuca ovina var. glauca	•	4-8	Mid	Seedhead	. 1		1.5
Devision or singertons	Yaku Jima Maiden-Hair Grass		•	5-9	Late	Seedhead	. 4		4
	Switchgrass		•	2-8	Mid	Seedhead	5		3
Hardy Pampas Grass Saccharum ravennae 5-10 Mid-Late Seedhead 5 4	Hardy Pampas Grass	Saccharum ravennae	•	5-10	Mid-Late	Seedhead	. 5		4





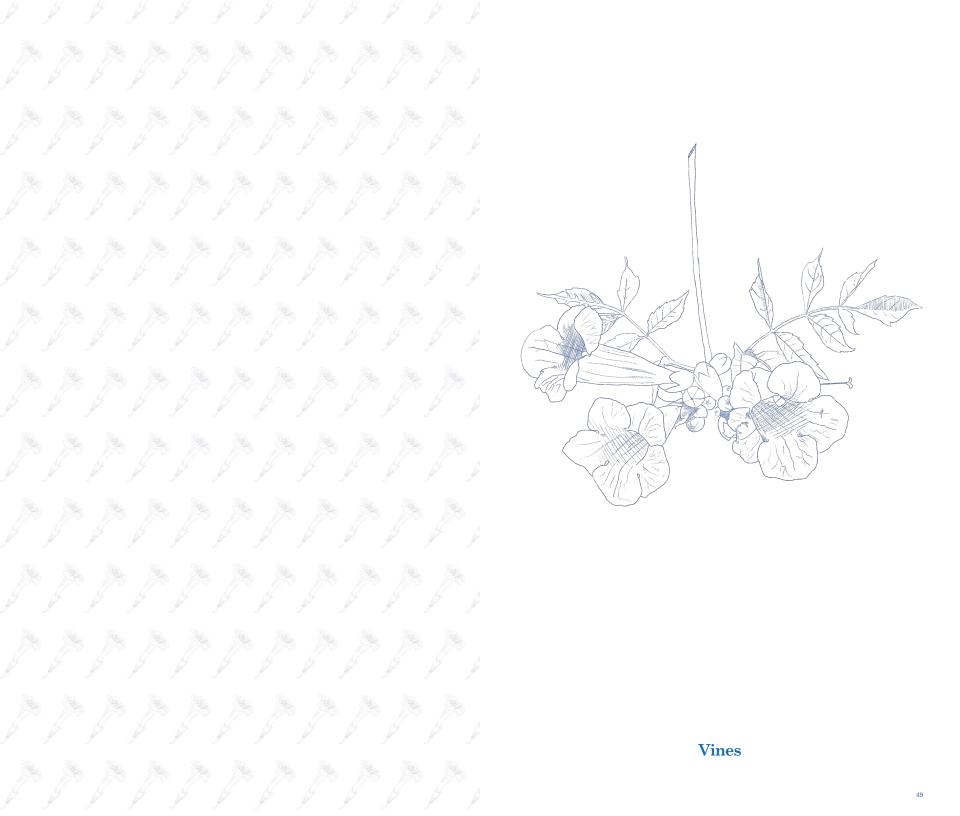
Perennials

Very Low Water Usage		USDA HARDINE ZONE	BLOOMING SS SEASON	BLOOM MAXIMU COLOR WIDTH (IAXIMUM IEIGHT (FT)
Basalt Milkvetch	Astragalus filipes	5-8	Early-Mid	Cream	1.5	1.5
Puckered Sundrops	Calylophus lavandulifolius	3-10	Early-Mid	Yellow	.5	1
Mountain Blue Cornflower	Centaurea monatan 'Blue'	3-8	Early-Mid	Blue/Violet	2	2
Spanish Gold Hardy Broom	Cytisus purgans	4-9	Early-Mid	Yellow	4	6
Western Prairie Clover	Dalea ornata	4-8	Mid	Purple	1.5	2
Searls' Prairie Clover	Dalea searlsiae	4-8	Mid	Purple	2	2
Blut Iceplant	Delosperma ashtonii 'Blut'	5-7	Mid	Magenta 1	1.5	
Yellow Daisy	Erigeron linearis	5-8	Early-Mid	Yellow	.5	1.5
Basin Fleabane	Erigeron pulcherrimus var. pulcherrimus	5-8	Early-Mid	White/Lavender	1	.5
Pink Smoke Buckwheat	eriogonum racemosum	3-9	Late	Pink	3	.5
Sulfur Buckwheat	Eriogonum umbellatum	3-9	Variable	Variable	1	1.5
Snow Mesa Buckwheat	Eriogonum wrightii var wrightii Gaillardia z grandiflora	4-9	Mid-Late	White	1.5	2
Arizona Sun Blanket Flower	'Arizona Sun' Hymenoxys acaulis	3-9	Mid-Late	Red/Yellow	1	1
Sundancer Daisy	Linum lewisii	4-10	Early-Mid	Yellow	1	.5
Blue Flax	Oenothera caespitosa	4-9	Early-Mid	Blue	2.5	2.5
White-Tufted Evening Primrose	Oenothera howardii	4-9	Early-Mid	White	1	2
Bronze Evening Primrose	Oenothera macrocarpa	4-9	Early-Mid	Yellow	2	1
Missouri Evening Primrose	Oenothera pallida	4-8	Early-Mid	Yellow	1	2
Pale Evening Primrose	Penstemon palmeri	4-9	Early-Mid	White	2	1
Palmer Penstemon	Penstemon rostriflorus	4-9	Early-Mid	Pink	5	2
Bridges' Penstemon		4-9	Mid-Late	Orange-Red	2	2

Low Water Usage		USDA HARDINES ZONE	BLOOMING SS SEASON		IAXIMUM IDTH (FT)		AXIMUM EIGHT (FT)
Sea Thrift	Armeria maritima	4-8	Early-Mid	Variable		1	1
Fernleaf Yarrow	Achillea filipendulina 'Gold Plate'	3-10	Early-Mid	Yellow		3-5	3
Moonshine Yarrow	or 'Coronation Gold' Achillea millefolim	3-9	Mid-Late	Yellow		2	2
Persian Stonecress	'Moonshine' Aethionema schistosum	4-8	Mid	Pink		1	1
Licorice Mint	Agastache rupestris	5-9	Mid	Variable		3.5	1.5
Hybrid Hummingbird Mint	Agastache x 'Desert Sunrise'	5-10	Mid-Late	Variable		4	2
Tapertip Onion	Allium acuminatum	3-7	Early-Mid	Pink/Purple)	1	.25
Mount Atlas Daisy	Anacyclus depressus	5-9	Early	White		.25	1.5
Shrubby Sandwort	Arenaria macradenia	3-8	Early-Mid	White		1.5	2
Fringed Sage	Artemisia figida	3-6	Mid-Late	Yellow		1.5	1.5
White Sage	Artemisia ludoviciana 'Silver King'	4-9	Mid-Late	Yellow		3	3
Silver Mound Wormwood	Artemisia schidtiana 'Silver mound'	3-7		Inconspicuo	us	1	1.5
Sea Foam Artemisia	Artemisia versicolor 'Sea Foam'	4-10	Occasional	Silver-Yello	W	.75	2
Silver Sage	Artemisia x 'Powis Castle'	4-9				3	2.5
Butterfly Weed	Asclepias tuberosa	3-9	Mid-Late	Orange		3	3
Basket-Of-Gold	Aurinia saxatilis	4-7	Early-Mid	Yellow		1	1.5
Desert Marigold	Eaileya multiradiata	3-10	Early-Late	Yellow		1	2
Chocolate Flower	Berlandiera lyrata	4-8	Early-Late	Yellow		3	1
Poppy Mallow	Callirhoe involucrata	4-9	Mid-Late	Magenta .5		2.5	
Prairie Lode Sundrops	Calylophus serrulatus 'Prairie Lode'	3-9	Mid-Late	Yellow		.5	1.5
Orange Indian Paintbrush	Castilleja integra	4-7	Early-Mid	Orange		1	.5
Jupiter's Beard	Centranthus ruber 'Coccineus'	4-9	Early-Mid	Rose-Red3		2.5	
Mayfield Giant Tickseed	Coreopsis grandiflora 'Mayfield Giant'	4-10	Early-Mid	Yellow		4	1.5
Tickseed	Coreopsis grandiflora 'Sunray' or 'Zagreb'	3-9	Mid	Yellow		2	1.5
Threadleaf Tickseed	Coreopsis verticillata Moonbeam'	3-9	Mid	Yellow		2	2

Low Water Usage Cont.			USDA HARDINE ZONE	BLOOMING SS SEASON	BLOOM MAXIMI COLOR WIDTH		MAXIMUM HEIGHT (FT)
Gold Nugget Iceplant	Delosperma congestum	•	5-7	Mid-Late	Yellow	.5	.75
Hardy Purple Iceplant	'Gold Nugget' Delosperma cooperi	•	5-7	Mid-Late	Purple	.25	1.5
Fire Witch Dianthus	Dianthus gratianopolitanus	•	3-9	Early-Mid	Pink	.75	1.5
Red Feathers	'Fire Witch' Echium amoenum	•	3-9	Early-Late	Red	1.5	1
Blanketflower	Gaillardia aristata	•	3-10	Mid	Yellow/Red	1.5	1
Hopi Blanketflower	Gaillardia pinnatifolia	•	3-10	Mid-Late	Yellow/Red	1.5	1
Whirling Butterflies	Gaura lindheimeri	•	9-9	Mid-Late	White/Pink	5	2
Dyer's Broom	Genista tinctoria	•	4-7	Early-Mid	Yellow	3	2
Cheviot Rockrose	Helianthemum x nummularium 'Cheviot'	•	5-8	Early-Mid	Peach	1	3
Variegated Sweet Iris	Iris pallida 'Variegata'		4-9	Early-Mid	Violet-Blue	2.5	1
Red Hot Poker	Kniphofia uvaria 'Hybrid Mix'	•	4-10	Early-Mid	Orange/Yellow	3	3
English Lavender	Lavandula angustifolia 'Hidcote'	•	5-8	Early-Mid	Purple	3	1.5
Grayfeather	Liatris punctata	•	4-8	Mid-Late	_	1.5	
Button Snakewort	Liatris spicata	•			Purple		1
Blue Cloud Lavender	Limonium latifolium 'Blue Cloud'	•	3-8	Mid-Late	Purple	4	1.5
Silver Edged Horehound	Marribium rotundifolia	•	4-9	Mid-Late	Purple	2	2
Showy Four O-Clock	Mirabilis multiflora		5-9		Inconspicuous	1	1.5
Mountain Beebalm	Monardella odoratissima	•	4-8	Mid-Late	Magenta	1.5	4
Blue Catmint	Nepeta x faassenii 'Blue Wonder'	•	3-10	Mid-Late	Purple	1	1
Hopflower Oregano	Origanum libanoticum		3-8	Mid-Late	Purple	1.5	1.5
Firecracker Penstemon	Penstemon eatonii		5-10	Mid-Late	Pink	1.5	1.5
Prairie Jewel Penstemon	Penstemon fradiflorus 'Prairie Jewel'		4-9	Early-Mid	Red	3	1.5
Yellow Pineleaf Penstemon	Penstemon pinifolium 'MerseaYellow'		4-9	Early-Mid	Variable	3	1
Rocky Mountain Penstemon	Penstemon strictus	0	4-9	Early-Mid	Yellow	1	1
Pikes Peak Purple Beardtongue	Penstemon x mexicali 'Pikes Peak Purple'		4-9	Early-Mid	Purple	2	3
Red Rocks Hybrid Beardtongue	Penstemon x mexicali 'Red Rocks'		5-9	Early-Mid	Purple	1.5	1.5

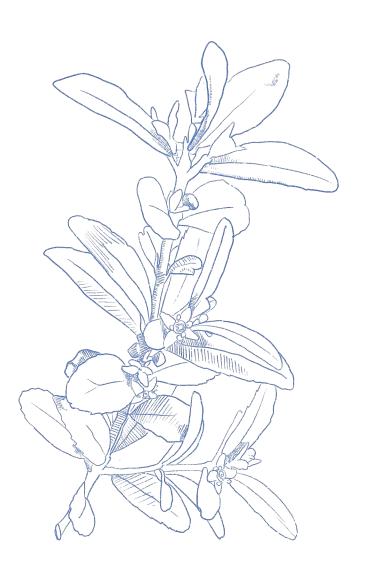
Medium Water Usage			USDA HARDINE ZONE	BLOOMING SS SEASON		AXIMUM IDTH (FT)		KIMUM GHT (FT)
Lady's Mantle	Alchemilla mollis		3-8	Mid	Green		1.5	2.5
Pearly Everlasting	Anaphalis margaritacea		3-8	Mid	White	:	2.5	2
Purple Dome New England Aster	Aster novae-angliae 'Purple Dome'		3-8	Mid-Late	Purple		1.5	1.5
Monch Hybrid Aster	Aster x frikartii 'monch' or ' wonder of staffa'	•	5-9	Mid-Late	Purple		3	2
Hearleaf Bergenia	Bergenia cordifolia	\bigcirc	3-8	Early	Pink/Lilac		1.5	1.5
Cupid's Dart	Catanache caefulea		4-7	Mid-Late	Blue/Violet	:	2	1
Corydalis	Corydalis lutea	\bigcirc	5-7	Early-Late	Yellow		1.5	1.5
Siskiyou Pink Gaura	Gaura lindheimeri 'Siskyou Pink'		5-8	Mid-Late	Pink		1.5	1.5
Sticky Geranium	Geranium ciscosissimum		2-8	Early-Mid	Pink	:	2	2
Baby's Breath	Gypsopjila paniculata 'Bristol Fairy'		3-9	Early-Mid	White	;	3	3
Orange Sneezeweed	Helenium hoopesii		3-8	Mid	Yellow	;	3	2
Splendins Coral Bells	Heuchera sanguinea 'Splendins'		5-9	Mid	Red		1.5	1.5
Candytuft	Iberis sempervirens		3-8	Early	White		1	1.5
Blackfoot Daisy	Melampodium leucanthum		5-9	All Season	White		1.5	2



Medium Water Usage			USDA HARDINES ZONE	BLOOMING SS SEASON	BLOOM COLOR	MAXIMUN WIDTH (F		MAXIMUM HEIGHT (FT)
Scarlet Trumpet Vine	Campsis radicans 'Flamenco'	lacksquare	4-10	Mid-Late	Red/Oran	ge	40	3
Yellow Trumpet Vine	Campisi radicans 'Flava'		5-9	Mid-Late	Yellow		40	3
Trumpet Creeper	Campsis x tagliabuana 'Madame Galen'		4-9	Mid	Salmon		25	12
Western White Clematis	Clematis ligusticifolia		3-7	Mid	White		20	2
Golden Clematis	Clematis tangutica		4-9	Mid-Late	Yellow		15	2
Japanese Wisteria	Wisteria floribunda		5-9	Early-Mid	Purple		30	2







Ground Covers

				USDA BLOOMING HARDINESS SEASON		BLOOM MAXIMUM COLOR WIDTH (FT)			IMUM GHT (FT)
Very Low Water Usage				ZONE			0		
Common Juniper	Junipersus communis	œ		1-5			3		1
Tufted Rockmat	Petrophytum caespitosum			3-7	Early	Cream	.5		3
Carpet Phlox	Phlox hoodii			3-7	Early	Variable	.5	Spr	reading
Dorr Sage	Salvia dorrii			3-6	Early	Blue/Purple	2.5		3
Low Water Usage			}						
Woolly Yarrow	Achillea tomentosa			3-10	Mid	Yellow	.5		2
Snow-In-Summer	Cerastium tomentosum			3-10	Early	White	.75		2.5
Trailing Daisy	Erigeron flagellaris			2-10	Mid	White	1	Spr	eading
Hardy Dwarf Broom	Genista lydia		lacksquare	4-10	Early	Yellow	1		4
Creeping Juniper	Juniperus horizontalis 'Blue Chip'			3-9			.75		8
Pawnee Butte Sand Cherry	Prunus besseyi 'Pawnee Butte'			4-8	Early-Mid	White	1.5	,	6
Grow-Low Sumac	Rhus aromatica 'Gro-low'		lacksquare	4-9			3		8
Russian Stonecrop	Sedum kamtoschaticum		lacksquare	3-9	Mid	Orange/Yellow	1		2
Dragon's Blood Stonecrop	Sedum spurium			2-9	Mid	Pink	.5		1.5
Vatiegated Stonecrop	Sedum spurium 'Tricolor'		lacksquare	2-9	Mid	Pink	.5		1.5
Partridge Feather	Tanacetum densum ssp. Amani Thymus lanuginosus			4-9	Mid	Yellow	.5		3
Woolly Thyme				4-9	Mid	Pink	.25	,	3
Red Creeping Thyme	Thymus praecox 'Coccineus'			2-9	Early-Mid	Red	.25		1.5
Turkish Speedwell	Veronica liwanensis		lacksquare	4-8	Early-Mid	Blue	.25	,	1.5
Medium Water Usage									
Rosy Pussytoes	Antenmaria mictophylla		lacksquare	3-10	Mid	Yellow	.25	Sp	reading
Bearberry Or Kinnikinnick	Arctostaphylos uva-ursi			3-7	Mid	Pink	1		6
Creeping Oregon Grape	Mohonia repens		\bigcirc	4-7	Early	Yellow	1		4
Mountain Lover	Pachystima myrsinites		\bigcirc	3-6	Mid	Dark Pink	3		5

Sources

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