NATIVE GARDENS FOR IDAHO PARTNERSHIP
Boise School District
Bureau of Land Management (BLM)
City of Boise
College of Western Idaho
Garden City Garden Club
Golden Eagle Audubon Society
Idaho Department of Fish and Game
Mancuso Botanical Services
Steppe Environmental
U.S. Fish and Wildlife Service (USFWS)
West Ada School District

WRITTEN BY
Holly Hovis, BLM
Kristin Lohr, USFWS

CONTRIBUTING AUTHORS
Anne Halford, BLM
Chris Taylor, Boise School District
Dave Hopper, USFWS
Dusty Perkins, College of Western Idaho
Judy Snow, Garden City Garden Club
Karen Colson, USFWS
Kristin Gnojewski, City of Boise, Parks and Recreation
Lynell Sutter, Steppe Environmental
Micah Lauer, West Ada School District
Michael Mancuso, Mancuso Botanical Services
Sean Finn, Golden Eagle Audubon Society

DESIGN
Antonia Hedrick, BLM

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**RESOURCES**
Introduction

Welcome to the Native Garden Guide for Southwestern Idaho. This guide was created to help novice gardeners create waterwise, wildlife-friendly gardens using plants suitable for southwest Idaho. The information in this guide will assist backyard gardeners, urban planners, schools, and businesses transform their landscapes into native gardens. All plants listed in this guide are native to Idaho or to adjacent states with the same growing conditions. The purpose of this guide is to:

• provide steps for developing and maintaining native gardens
• provide examples of garden designs
• provide lists of locally adapted native plants
• aid in conserving water and attracting birds and pollinators
• identify partners, local resources and funding opportunities

Why Native Plants?

Urban gardens can provide important habitat for animals such as birds and native pollinators (bees, butterflies, moths, hummingbirds). These gardens can be used for nesting, foraging, shelter, and as stopovers during spring and fall migration. Native plants are adapted to the growing conditions in our area, thus requiring less water than introduced plants. They also support more insects, including native pollinators, than nonnative plants. This means more habitat for native bees and more food for insect-eating birds! Who needs a bird feeder when you have a native garden?

Arrowleaf balsamroot, *A. Hedrick*
Section A

How to Get Your Garden Started

Some basic steps will help you in creating your garden. Your garden planning time will depend on the size of your garden and the number of interested individuals. A backyard garden can be easily planned and implemented within a few months. A community garden that serves many people may take up to one year of planning prior to installation.

Basic Steps for a School or Community Garden

1. Form a team
2. Solicit input from staff, partners, or community
3. Create design
4. Present design to person approving garden
5. Develop schedule and coordinate with contractors or maintenance staff
6. Write grant proposals
7. Raise funds
8. After funding is awarded, refine plant list based on availability and order plants
9. Clear site of existing vegetation
10. Install hardscaping such as boulders and seating
11. Add topsoil if needed
12. Install irrigation
13. Plant
14. Protect plantings with temporary fencing
15. Install interpretive signs
16. Develop and implement garden maintenance plan

Basic Steps for a Home Garden

1. Decide what your garden priorities are (water savings, pollinators, monarch butterflies, birds etc.).
2. Decide how much time you have to spend on a garden (little time = fewer plants that require less work).
3. Choose a design from this guide and adapt it to your space or create your own from the provided plant lists.
4. Figure out the cost of the garden. If you lack the funds, look for fall sales, grow plants from seed, or look for plant donations from fellow gardeners.
5. Clear the area to be planted.
6. Add compost and topsoil, if needed.
7. Install irrigation, if needed.
8. Plant.
10. Mark your plants so you can tell the difference between what you planted and what is a weed.
11. Maintain your garden.
Forming a Team

If you are planning a community garden you will want to have the support of a garden team. Ideally, you will have a team of people who bring different skills to your group. Formalizing the group in some way, either by giving it a name or working it into an organization program, will help build continuity of the project. Some examples of garden team memberships are listed.

• Garden Coordinator—can be a parent or school staff but should definitely be a formal position on the Parent Teacher Association/Organization. They will organize the garden team to complete all the garden activities such as installation and periodic maintenance.
• Principal—Your principal will need to be a strong advocate for the garden. They will often need to write support letters for some of the grants or sign off on grant applications. They are also critical as a communication pathway between your team and the rest of the school.
• Maintenance Staff—They will be helpful in locating utility lines and irrigation options. They may be conducting some of the work.
• Resource Professional—Such as a botanist or biologist.
• Teachers and Students—Garden Clubs and Jr. Naturalist Programs are a great way to involve students and give the student body a voice in the garden design.

Students at Roosevelt Elementary conduct pollinator counts on native plants in their outdoor classroom.
Gathering Input
For school and community gardens, gathering input early in the process will foster ownership of the project and promote sustainability. The input you receive will help you tailor the project to the needs of the users of the garden. For example, a community may desire a neighborhood gathering place that could be created by including an open seating area with shade from the sun. An educator may have curriculum objectives that could be met by specific plantings. A sample school questionnaire is included below.

---SCHOOL QUESTIONNAIRE---

For Teachers
• What curriculum topics would you like to teach in a hands-on outdoor nature setting?

---
• How can you meet the needs of the curriculum topics in terms of types of plants or habitats?

---
• Do you prefer on-the-ground seating, boulders, benches, or other options?

---
• Would work tables be useful to you? Do you anticipate using a permanent type easel?

---
• Any other concerns that we should be aware of when designing the garden?

---
• Do your students have special needs that could be addressed in the garden for either access or use?

---

For Students
• What would you like to do in an outdoor classroom?

---
• Draw or write what you would like to experience in the nature garden that will be part of our outdoor classroom.

---
• Check activities that interest you:
  ___Quiet reading time
  ___Science experiments
  ___Observing Insects and pollinators
  ___Wildlife habitat
  ___Learning recipes using wild native plants
  ___Identifying plants native to your backyard
  ___Nature drawing or arts/crafts
  ___Staging plays
Section B

Funding
You can install a native garden for as little as $100 up to $25,000 and beyond depending on the size of the
garden, the amount of labor you are willing to perform yourself, and your access to free materials such
as plants, mulch, and tools. Knowing the potential components that you may want to include and the
general costs will help you build a budget when writing grant proposals.

Costs to consider in your budget:
• Soil and rock mulch: $100-$4,000
• Boulders: $350 for 3-5 seat sized rocks
• Labor for rock placing and spreading mulch: $1,000-$3,000
• Native plants: $0-$2,000
• Art and interpretive signs: $2,000 for single panel medium sign out of metal and acrylic
• Equipment rental: $500-$750
• Irrigation materials: $1,300-$3,500
• Irrigation labor: varies by contractor
• Tools (wheelbarrows, shovels, pruning shears,...)
• Garden benches, bee boxes, bird bath, bird feeders: cost varies

Outdoor amphitheater seating in Hawthorne Elementary’s garden, which doubles as a community gathering area and outdoor student orchestra space.
Grants

Seek out free labor or material options (e.g., Eagle Scout projects, school PTO, volunteer parents, local garden clubs, master gardener projects, horticulture classes or contact big box stores for donations of materials/grant programs).

BLM Master Funding Opportunities, Native Plant Conservation and Restoration Program
www.blm.gov/services/financial-assistance-and-grants

Boise Public Library Grants
www.boisepubliclibrary.org/research-learning/nonprofit-funding-resources/

Boise Public Schools Education Foundation
boiseschoolsfoundation.com/college-prep/other-scholarships/

Boise Urban Garden School Grants
www.boiseurbangardenschool.org/

The Grants Learning Center
www.grants.gov

Idaho Botanical Garden Lunaria Grant
idahobotanicalgarden.org/lunaria-grant-program/

Idaho Environmental Education Association Grants.
www.idahoee.org/ee-educator-grants/

Idaho Native Plant Society; Education, Research, and Inventory Grant
idahonativeplants.org/erig/Announcement_for_2016_ERIG.pdf

Idaho Power Employee Community Fund
www.idahopower.com/NewsCommunity/Community/empCommServFund.cfm

Lowé’s Toolbox for Education
www.toolboxforeducation.com

Micron Community Grants
www.micron.com/foundation/community/grants

National Environmental Education Foundation Grants
www.neefusa.org/grants

National Fish and Wildlife Federation Grants
www.nfwf.org/whatwedo/grants/Pages/home.aspx

Project Learning Tree
www.plt.org/resources/greenworks-grants/

The Cornell Lab. Youth and birds.

Vehicle Grants (e.g., Subaru, toyota, etc)
www.subaru.com/csr/soa-foundation.html

Wildones Seeds for Education Grant
www.wildones.org/seeds-for-education/
Section C

Garden Design

Gardens of any size or shape create habitat for wildlife and beautiful spaces for people to enjoy. They don’t have to be complicated or expensive. In this section, we present examples of small gardens to help you create a garden of your own, plus tips on design elements for a more polished effect. And remember, all of our garden designs can be scaled down if you are just a beginner and want to start small or they can be expanded if you have the experience and are ready for a larger garden.

The themed gardens in this section are just an inspirational starting point for you. Educational goals can be creatively worked into your garden design. Some schoolyard garden design ideas for early learners include:

- an alphabet garden—use plants that begin with the letters of the alphabet and label them
- a color garden—use plants of every color.

Design Tips

- Start small! When learning how to garden, start with a small space and select just a few plants. You can always add to your garden later.
- Clearly delineate your garden with a border or maintained edge to demonstrate that it is a purposeful space.
- Place tall plants in the back of the garden if your space backs up to a building
- If your space is visible from both sides, place your tallest plants in the middle of the garden
- Use anchor species such as large shrubs or trees to create structure and year round interest and round out with seasonally flowering filler perennials.
- Plant a ground cover or low stature filler plant, or use a thick mulch to suppress weeds.
- Create depth by contouring the ground with berms and planting taller plants on mounds.
- Use multiples of plants in groups of 3s or 5s.
- For larger gardens, use mass plantings of a single species for impact and to suppress weeds.
- For public gardens, install an interpretive sign that clearly states the purpose of the garden.
- For school gardens, select plants with spring and fall blooms and plants with winter interest for when students are in school.
- For community gardens, add seating such as boulders and benches.
- Anticipate areas of high traffic where garden trampling could occur. Plant masses of rugged plants such as bunchgrasses that can withstand foot traffic or line with shrubs that will prevent entrance to the area.

A table of native plants with their growth requirements and benefits is included in Section F. All of these plants are commercially available and perform well in garden settings.
If gardens are in a public setting such as a school or community area the access will need to be Americans with Disabilities Act (ADA) compliant.

Pathways should be at least 3 ft. wide and surfaced with material that a wheelchair can negotiate, such as pavement or packed crushed rock (decomposed granite).
Roosevelt Elementary native garden with border delineated by rocks and maintained edges.

BLM Boise District ethnobotany garden has seasonally-flowering perennials and anchor plants in the back.
Suez Water native garden with border delineated by rocks and maintained edges.

Quail garden art in the Suez Water native garden.
Plant low-growing plants in front and tall plants in back.
**Bird Habitat Garden**

Planting a garden that provides food and shelter will attract birds which, with their bright colors and beautiful songs, will enhance visitor enjoyment of the garden. Birds prefer dense shrubs as hiding places from which they venture out to find food. Most birds eat some combination of seeds, fruits and insects so a garden that provides a little of each is more likely to attract a variety of birds. Larger gardens with trees and art can also provide habitat for nesting and perches where birds will fill the air with song.

Features of a bird habitat garden include:

- plantings rich in berry producing shrubs
- high diversity of seasonal plants with focus on Aster and Buckwheat families for seed eaters
- plants such as fireweed and milkweed that support strong insect communities for insect eaters
- range of heights of shrubs for nesting/roosting habitat

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
<th>BLOOM TIME</th>
<th>FLOWER / FOLIAGE COLOR</th>
<th>PLANT HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GROUND COVER AND FILLER</strong></td>
<td></td>
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</tr>
<tr>
<td><em>Acrtostaphylos uva-ursi</em></td>
<td>Kinickinick</td>
<td>Spring</td>
<td>Pink</td>
<td>6”</td>
</tr>
<tr>
<td><em>Festuca idahoensis</em></td>
<td>Idaho Fescue (Grass)</td>
<td>Early Summer</td>
<td>Green, Blue-green</td>
<td>18”</td>
</tr>
<tr>
<td><em>Gilia aggregata</em></td>
<td>Scarlet Gilia</td>
<td>Early Summer</td>
<td>Red</td>
<td>30”</td>
</tr>
<tr>
<td><em>Heuchera cylindrica</em></td>
<td>Alumroot</td>
<td>Early Summer</td>
<td>White</td>
<td>12”</td>
</tr>
<tr>
<td><em>Pseudoroegneria spicata</em></td>
<td>Bluebunch Wheatgrass</td>
<td>Early Summer</td>
<td>Yellow</td>
<td></td>
</tr>
<tr>
<td><strong>FLOWERING PLANTS</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><em>Asclepias speciosa</em></td>
<td>Showy Milkweed</td>
<td>Mid-Summer</td>
<td>Pale pink, white</td>
<td>48”</td>
</tr>
<tr>
<td><em>Eriogonum compositum</em></td>
<td>Arrowleaf Buckwheat</td>
<td>Early Summer</td>
<td>White-cream</td>
<td>12”</td>
</tr>
<tr>
<td><em>Eriogonum strictum</em></td>
<td>Blue Mountain Buckwheat</td>
<td>Fall</td>
<td>White flowers, silver foliage</td>
<td>12”</td>
</tr>
<tr>
<td><em>Erigeron subtrinervis</em></td>
<td>Threeneerve Fleabane</td>
<td>Summer-Fall</td>
<td>Purple</td>
<td>24”+</td>
</tr>
<tr>
<td><em>Eriogonum umbellatum</em></td>
<td>Sulfur Buckwheat</td>
<td>Spring</td>
<td>Yellow</td>
<td>12”</td>
</tr>
<tr>
<td><em>Gaillardia aristata</em></td>
<td>Blanket Flower</td>
<td>Mid-Summer</td>
<td>Red-yellow</td>
<td>24”</td>
</tr>
<tr>
<td><em>Hymenoxys acaulis</em></td>
<td>Orange Sneezeweed</td>
<td>Spring</td>
<td>Yellow-orange</td>
<td>30”</td>
</tr>
<tr>
<td><em>Tetraneuris acaulis</em></td>
<td>Sundancer Daisy</td>
<td>Mid-Summer</td>
<td>Yellow</td>
<td>12”</td>
</tr>
<tr>
<td><strong>TREE AND SHRUB STRUCTURE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Amalanchier alnifolia</em></td>
<td>Western Serviceberry</td>
<td>Spring</td>
<td>White</td>
<td>60”+</td>
</tr>
<tr>
<td><em>Cercocarpus ledifolius</em></td>
<td>Curl-Leaf Mountain Mahogany</td>
<td>Spring</td>
<td>Cream</td>
<td>96”+</td>
</tr>
<tr>
<td><em>Juniperus sp.</em></td>
<td>Juniper (Tree)</td>
<td>Spring</td>
<td>NA</td>
<td>20”+</td>
</tr>
<tr>
<td><em>Krascheninnikovia lanata</em></td>
<td>Winterfat</td>
<td>Early Summer</td>
<td>White, silver</td>
<td>30”</td>
</tr>
<tr>
<td><em>Prunus virginiana</em></td>
<td>Chokecherry</td>
<td>Spring</td>
<td>White</td>
<td>10”+</td>
</tr>
<tr>
<td><em>Rhus trilobata</em></td>
<td>Lemonade Bush</td>
<td>Spring</td>
<td>Yellow</td>
<td>36”+</td>
</tr>
<tr>
<td><em>Sambucus nigra cerulea</em></td>
<td>Blue Elderberry</td>
<td>Early Summer</td>
<td>White flowers, purple/black fruits</td>
<td>10’</td>
</tr>
<tr>
<td><em>Sorbus scopulina</em></td>
<td>Mountain Ash</td>
<td>Spring</td>
<td>White</td>
<td>13’</td>
</tr>
<tr>
<td><em>Symphoricarpos albus</em></td>
<td>Snowberry</td>
<td>Spring</td>
<td>Pink</td>
<td>48”</td>
</tr>
</tbody>
</table>

* Very good for birds but requires annual pruning and shaping or will occupy a wide space.
Bird Habitat Garden Example

Shapes show planting areas with 3-5+ plants. Shrub shapes are single plants.

Scale: 1 inch = 5 feet
This garden = 45’x30’
Bird Habitat Garden

- Blanket Flower
- Blue Mountain Buckwheat
- Sundancer Daisy
- Alumroot
- Snowberry
- Sulfur Buckwheat
Bird Habitat Garden

Winterfat

Threenerve Fleabane

Arrowleaf Buckwheat

Showy Milkweed

Blue Elderberry

Kinnikinnick
Bird Habitat Garden

Juniper

Mountain Ash

Oakleaf Sumac

Orange Sneezeweed

Scarlet Gilia

Serviceberry
**Pollinator Habitat Garden**

The whir of hummingbird wings and buzzing from bees is the sound of a vibrant pollinator garden. Gardening for pollinators provides beauty to the landscape and habitat for pollinators such as hummingbirds, bees, butterflies, moths, and beetles. A garden that includes a mix of colors, bloom times, and flower shapes will host a large diversity of pollinators that often have unique flower preferences. Often unnoticed, insect pollinators are our most abundant wildlife. They also support other creatures by providing food for birds and bats. Bees pollinate approximately 75 percent of the fruits, nuts, and vegetables in the United States and over 80 percent of flowering plants. Planting a garden for these small creatures can make a big difference to our environment. Features of a pollinator garden include:

- plants with staggered blooming times to provide nectar and pollen from spring to fall
- a diversity of flower types/shapes for different pollinators
- day and evening flowering plants
- plants that support both larval and adult phases of pollinating insects
- provide nesting habitat such as bare soil areas and dormant plant stems over winter

**Management for Pollinators:**

- Use a fine gravel mulch such as decomposed granite or leave some bare areas for ground-nesting bees.
- Include logs and hollow stems for cavity nesting bees.
- Piles of rocks, leaf litter or logs will provide overwintering habitat or make a bee house for a cleaner look.
- Water in early morning when mother bees are home in the nest. Daytime watering can flood or obscure nest sites for bees who are out foraging, making it hard to locate their nests when they return.
- Do not use landscape fabric/barrier in the entire garden. It is impermeable to ground nesting insects.
- When pruning or thinning, leave 12-15 inch stubs of hollow stems for nesting bees.
- Following spring pruning of plants, leave cuttings of hollow-stemmed plants bundled on site.

**Color Preferences of Pollinators**

- bees—blue, purple, white, yellow
- butterflies—red, orange, yellow, pink, purple
- moths—white, pale pinks, yellows

**Flower Shape Preferences of Pollinators**

- long tubular flowers—hummingbirds, moths, butterflies, long-tongued bees
- disk flowers (daisy shaped)—bumblebees and butterflies
- bell shaped flowers—long tongued bees and bumblebees
- bowl flowers (buttercup shaped)—flies, beetles, honey bees and solitary bees
- pea shaped flowers—honey bees and solitary bees

*Skipper Butterfly, A. Hedrick*
## POLLINATOR HABITAT GARDEN

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
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<th>BLOOM TIME</th>
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<th>PLANT HEIGHT</th>
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<td><strong>GROUND COVER AND FILLER</strong></td>
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</tr>
<tr>
<td>Antennaria microphylla</td>
<td>Dwarf Pussytoes</td>
<td>Early Summer</td>
<td>Pink</td>
<td>5”</td>
</tr>
<tr>
<td>Acrutostaphylos uva-ursi</td>
<td>Kinickinick</td>
<td>Spring</td>
<td>Pink</td>
<td>6”</td>
</tr>
<tr>
<td>Cleome lutea*</td>
<td>Rocky Mountain Bee Plant</td>
<td>Summer</td>
<td>Purple</td>
<td>48”</td>
</tr>
<tr>
<td>Cleome serrulata*</td>
<td>Yellow Bee Plant</td>
<td>Summer</td>
<td>Yellow</td>
<td>60”</td>
</tr>
<tr>
<td>Festuca idahoensis</td>
<td>Idaho Fescue (Grass)</td>
<td>Early Summer</td>
<td>Green, Blue-green</td>
<td>18”</td>
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<td><strong>FLOWERING PLANTS</strong></td>
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<tr>
<td>Asclepias speciosus</td>
<td>Showy Milkweed</td>
<td>Mid-Summer</td>
<td>Pale pink, white</td>
<td>48”</td>
</tr>
<tr>
<td>Epilobium canum</td>
<td>Hummingbird Trumpet</td>
<td>Summer</td>
<td>Red</td>
<td>8”</td>
</tr>
<tr>
<td>Eriogonum heracleoides</td>
<td>Wyeth Buckwheat</td>
<td>Summer</td>
<td>Cream</td>
<td>12”</td>
</tr>
<tr>
<td>Eriophyllum lanatum</td>
<td>Wooly Sunflower</td>
<td>Summer</td>
<td>Yellow</td>
<td>8”</td>
</tr>
<tr>
<td>Eriogonum microthecum</td>
<td>Slender Buckwheat</td>
<td>Fall</td>
<td>White-Pink</td>
<td>12”</td>
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<tr>
<td>Eriogonum strictum</td>
<td>Blue Mountain Buckwheat</td>
<td>Fall</td>
<td>White flowers, silver foliage</td>
<td>12”</td>
</tr>
<tr>
<td>Monarda fistulosa</td>
<td>Wild Bergamot</td>
<td>Summer</td>
<td>Purple</td>
<td>24”+</td>
</tr>
<tr>
<td>Oenothera caespitosa</td>
<td>Tufted Evening Primrose</td>
<td>Summer</td>
<td>White</td>
<td>6”</td>
</tr>
<tr>
<td>Penstemon procerus</td>
<td>Little Flower Penstemon</td>
<td>Spring</td>
<td>Purple</td>
<td>12”</td>
</tr>
<tr>
<td>Sphaeralcea munroana</td>
<td>Munro’s Globemallow</td>
<td>Summer</td>
<td>Orange</td>
<td>24”</td>
</tr>
<tr>
<td><strong>TREE AND SHRUB STRUCTURE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amelanchier alnifolia</td>
<td>Serviceberry</td>
<td>Spring</td>
<td>White</td>
<td>60”+</td>
</tr>
<tr>
<td>Chamaebatiaria millefolium</td>
<td>Fernbush</td>
<td>Summer</td>
<td>White</td>
<td>72”</td>
</tr>
<tr>
<td>Ericameria nauseosus</td>
<td>Rubber Rabbitbrush</td>
<td>Fall</td>
<td>Yellow</td>
<td>24”+</td>
</tr>
<tr>
<td>Use a dwarf variety</td>
<td></td>
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</tr>
<tr>
<td>Salvia dorri</td>
<td>Purple Sage</td>
<td>Summer</td>
<td>Purple</td>
<td>36”</td>
</tr>
</tbody>
</table>

*Annual that may be an initial and temporary plant in the garden. Can scatter seed during first year to provide quick impact.
Pollinator Habitat Garden Example

Shapes show planting areas with 3-5+ plants. Shrub shapes are single plants.

HT = hummingbird trumpet
DP = dwarf pussytoes
LFP = littleflower penstamon
SM = showy milkweed
WB = wild bergamont
WBW = wyeth buckwheat

= idaho fescue
= bluebunch wheatgrass

Scale: 1 inch = 5 feet
This garden = 45’x30’
Pollinator Habitat Garden

- Bluebunch Wheatgrass
- Littleflower Penstemon
- Idaho Fescue
- Rosy Pussytoes
- Wyeth Buckwheat
- Fernbush
Pollinator Habitat Garden

Showy Milkweed

Blue Mountain Buckwheat

Globemallow

Purple Sage

Serviceberry

Wild Bergamot
Pollinator Habitat Garden

_Hummingbird Trumpet_  

_Kinnikinnick_

_Rabbitbrush_  

_Rocky Mountain Bee Plant_

_Wooly Daisy_  

_Tufted Evening Primrose_
To create a bee house for leaf cutter or mason bees, drill holes in a log or non-treated piece of wood that is at least 6 inches deep. Drill holes can vary in size between 5/16 and 3/8 inch in diameter. Drill 3-5 inches deep for small diameter holes and 5+ inches deep for larger diameter holes. Do not drill all the way through the wood. Hang in sunny spot at eye level so you can watch the activity!
Monarch Butterfly Garden

The monarch butterfly is a beautiful orange and black butterfly that is found throughout the United States. They are known best for their long-distance migrations to either Mexico or California to overwinter. The western population of monarchs (those west of the Rocky Mountains) overwinter in California and breed in the western states. The Snake River Plain of Idaho is one of the best breeding areas for monarch butterflies in the West. The western population of monarchs has declined dramatically in the past couple of decades likely due to loss of habitat and pesticides. You can help monarchs by planting a garden with specific features:

• Milkweed for caterpillars—the only plant adults will lay their eggs on and the only plant the caterpillars will eat.
• Nectar plants for adults with overlapping bloom times from late May to mid October.
• Flower colors that attract butterflies—red, orange, yellow, pink, purple.
• Plantings grouped by color to create a large visual target that can be easily spotted by high-flying monarchs.
• Puddling habitat (water and minerals) in the form of damp areas of soil or a shallow dish filled with water and pebbles.
• No pesticides—herbicides and insecticides.

Once milkweed is established, check the underside of leaves for eggs or for caterpillars. The eggs and first phase of the caterpillar are tiny, so look carefully! Once the caterpillar reaches full size, it will form a chrysalis and emerge as a butterfly approximately 10 days later. Milkweed takes two years to bloom if it is grown from seed.
# Monarch Butterfly Garden

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Grow Time</th>
<th>Flower/Foliage Color</th>
<th>Plant Height</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ground Cover and Filler</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antennaria microphylla</td>
<td>Dwarf Pussytoes</td>
<td>Early Summer</td>
<td>Pink</td>
<td>5”</td>
</tr>
<tr>
<td>Cleome serrulata*</td>
<td>Rocky Mountain Bee Plant</td>
<td>Summer</td>
<td>Purple</td>
<td>48”</td>
</tr>
<tr>
<td><strong>Flowering Plants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asclepias speciosus**</td>
<td>Showy Milkweed</td>
<td>Mid-Summer</td>
<td>Pale pink, white</td>
<td>4 ft</td>
</tr>
<tr>
<td>Asclepias incarnata</td>
<td>Swamp Milkweed</td>
<td>Mid-Summer</td>
<td>Dark to pale pink</td>
<td>4 ft</td>
</tr>
<tr>
<td>Asclepias fascicularis**</td>
<td>Narrow-Leafed Milkweed</td>
<td>Mid-Summer</td>
<td>Pale pink</td>
<td>3 ft</td>
</tr>
<tr>
<td>Erigeron speciosus</td>
<td>Showy Fleabane</td>
<td>Summer</td>
<td>Purple</td>
<td>2 ft</td>
</tr>
<tr>
<td>Eriogonum compositum</td>
<td>Arrowleaf Buckwheat</td>
<td>Summer</td>
<td>Yellow</td>
<td>1.5 ft</td>
</tr>
<tr>
<td>Eriogonum microthecum</td>
<td>Slender Buckwheat</td>
<td>Fall</td>
<td>White-Pink</td>
<td>1 ft</td>
</tr>
<tr>
<td>Eriophyllum lanatum</td>
<td>Wooly Sunflower</td>
<td>Summer</td>
<td>Yellow</td>
<td>1-2 ft</td>
</tr>
<tr>
<td>Gaillardia aristata</td>
<td>Blanketflower</td>
<td>Summer</td>
<td>Red/yellow</td>
<td>2 ft</td>
</tr>
<tr>
<td>Helianthus annuus</td>
<td>Common Sunflower</td>
<td>Summer</td>
<td>Yellow</td>
<td>5 ft</td>
</tr>
<tr>
<td>Heliothres multiforma</td>
<td>Showy Goldeneye</td>
<td>Summer</td>
<td>Yellow</td>
<td>1 ft</td>
</tr>
<tr>
<td>Hymenoxys hoopesii</td>
<td>Owl’s-Claws</td>
<td>Summer-Fall</td>
<td>Yellow</td>
<td>2 ft</td>
</tr>
<tr>
<td>Monarda fistulosa</td>
<td>Wild Bergamot</td>
<td>Summer</td>
<td>Purple</td>
<td>2+ ft</td>
</tr>
<tr>
<td>Monardella odoratissima</td>
<td>Coyote Mint</td>
<td>Summer</td>
<td>White/pink</td>
<td>1 ft</td>
</tr>
<tr>
<td>Sphaeralcea</td>
<td>Globemallow</td>
<td>Summer</td>
<td>Orange</td>
<td>2 ft</td>
</tr>
<tr>
<td>Solidago canadensis</td>
<td>Canada Goldenrod</td>
<td>Late summer/fall</td>
<td>Yellow</td>
<td>5 ft</td>
</tr>
<tr>
<td><strong>Shrub Structure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ericameria nauseosus</td>
<td>Rubber Rabbitbrush</td>
<td>Fall</td>
<td>Yellow</td>
<td>24”+</td>
</tr>
<tr>
<td>Salvia dorrii</td>
<td>Purple Sage</td>
<td>Summer</td>
<td>Purple</td>
<td>36”</td>
</tr>
</tbody>
</table>

*Annual likely to reseed.

**Spreads once established
Monarch Butterfly Garden Example

Shapes show planting areas with 3-5+ plants. Shrub shapes are single plants.

Garden Edge

- Wild Bergamot
- Rabbitbrush
- Goldenrod
- Showy Milkweed
- Blanketflower
- Showy Goldeneye
- Showy Fleabane
- Purple Sage
- Arrowleaf Buckwheat

Blotch

Sunflowers

Goldenrod
Monarch Butterfly Habitat Garden

Showy Milkweed

Showy Fleabane

Blanket Flower

Arrowleaf Buckwheat

Showy Goldeneye

Rabbitbrush
Monarch Butterfly Habitat Garden

Owls Claws

Canada Goldenrod

Common Sunflower

Purple Sage

Coyote Mint

Dwarf Pussytoes
Monarch Butterfly Habitat Garden

Narrow-leaf Milkweed

Swamp Milkweed

Globemallow

Rocky Mountain Bee Plant

Slender Buckwheat

Wild Bergamot
Sensory Garden
Awaken your senses with the tart taste of golden currants and the sweet smell of bitterbrush in a sensory garden full of native plants. Gardens can promote learning and memory through sensory stimulation, especially through scented plants such as coyote mint and sagebrush. Creating a physical connection with a garden engages us and draws our attention more fully to the present. When all of our senses are activated, our brain function increases dramatically. This can be an effective tool if you are hosting educational events in your garden.

Features of a sensory garden:
• Plants that are hardy to withstand regular handling
• A range of contrasting textures and shapes for visual interest
• Low-growing plants that are in reach of young explorers
• Features such as natural-material wind chimes, art, and rocks with interesting surfaces

Coyote Mint
## SENSORY GARDEN

<table>
<thead>
<tr>
<th>SCIENTIFIC NAME</th>
<th>COMMON NAME</th>
<th>BLOOM TIME</th>
<th>FLOWER / FOLIAGE COLOR</th>
<th>PLANT HEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GROUND COVER AND FILLER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Hesperostipa comata</em></td>
<td>Needle and thread grass</td>
<td>Spring</td>
<td>Green</td>
<td>2 ft</td>
</tr>
<tr>
<td><em>Achnatherum hymenoides</em></td>
<td>Indian ricegrass</td>
<td>Spring</td>
<td>Green</td>
<td>1 – 2 ft</td>
</tr>
<tr>
<td><strong>FLOWERING PLANTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Monardella odoratissima</em></td>
<td>Coyote mint</td>
<td>Spring - Summer</td>
<td>Purple</td>
<td>1 ft</td>
</tr>
<tr>
<td><em>Geum triflorum</em></td>
<td>Prairie smoke</td>
<td>Summer</td>
<td>Rose-red</td>
<td>1 ft</td>
</tr>
<tr>
<td><em>Salvia dorrii</em></td>
<td>Purple sage</td>
<td>Spring - Summer</td>
<td>Blue - Purple</td>
<td>2 -3 ft</td>
</tr>
<tr>
<td><em>Geranium viscosissum</em></td>
<td>Sticky geranium</td>
<td>Spring - Summer</td>
<td>Pink</td>
<td>2 ft</td>
</tr>
<tr>
<td><em>Mentzelia laevicaulis</em></td>
<td>Smoothstem blazing-star</td>
<td>Summer</td>
<td>Yellow</td>
<td>1 – 3 ft</td>
</tr>
<tr>
<td><em>Asclepias fascicularis</em></td>
<td>Narrow-leafed milkweed</td>
<td>Summer</td>
<td>Pink, White, Purple</td>
<td>2 – 3 ft</td>
</tr>
<tr>
<td><em>Oenothera caespitosa</em></td>
<td>Tufted evening primrose</td>
<td>Spring - Summer</td>
<td>White</td>
<td>6 in</td>
</tr>
<tr>
<td><strong>TREE AND SHRUB ANCHOR PLANTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Cercocarpus ledifolius</em></td>
<td>Curl-leaf mountain mahogany</td>
<td>Spring</td>
<td>Yellow</td>
<td>10 – 15 ft</td>
</tr>
<tr>
<td><em>Artemisia tridentata ssp. vaseyana</em></td>
<td>Mountain big sagebrush</td>
<td>Fall</td>
<td>Yellow</td>
<td>6 ft</td>
</tr>
<tr>
<td><em>Purshia tridentata</em></td>
<td>Bitterbrush</td>
<td>Spring</td>
<td>Yellow</td>
<td>4-6 ft</td>
</tr>
<tr>
<td><em>Ribes aureum</em></td>
<td>Golden currant</td>
<td>Spring</td>
<td>Yellow</td>
<td>5 ft</td>
</tr>
</tbody>
</table>

### SENCES

<table>
<thead>
<tr>
<th>SCENT</th>
<th>TOUCH</th>
<th>VISUAL</th>
<th>TASTE</th>
<th>AUDIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coyote mint (leaves)</td>
<td>Smoothstem blazingstar (Velcro-like leaves)</td>
<td>Prairie smoke (seed heads with feathery plumes)</td>
<td>Golden currant (tart edible berries)</td>
<td>Birds chirping? Include nature based music materials</td>
</tr>
<tr>
<td>Sagebrush (leaves)</td>
<td>Sticky geranium (sticky leaves that trap and partially digest insects)</td>
<td>Needle and thread grass (shiny seeds with long tails that blow in wind)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bitterbrush (flowers and leaves)</td>
<td>Needle and thread grass (sharp tipped seed head with long tail that curls when moist)</td>
<td>Smoothstem blazing-star (large yellow star shaped flowers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evening primrose (flowers)</td>
<td>Curl-leaf mountain mahogany (feathery seed plumes and thick leathery leaves)</td>
<td>Sticky geranium (bright pink flowers with nectary guides on petals)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purple sage (leaves)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golden currant (vanilla-clove scented flowers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sensory Garden Example

Shapes show planting areas with 3-5+ plants. Single shapes are single plants.

SSBS = blazing star
TEP = tufted evening primrose
IR = indian ricegrass
BB = bitterbrush
NT = needle and thread grass
GC = golden currant
PS = purple sage
MM = mountain mahogany
SG = sticky geranium
NLMW = narrowleaf milkweed
SB = sagebrush
NT = needle and thread grass
GC = golden currant
PS = purple sage
MM = mountain mahogany
SG = sticky geranium
NLMW = narrowleaf milkweed
SB = sagebrush

Scale: 1 inch = 5 feet

This garden = 45'x30'

Coyote Mint
Prairie Smoke

Needle and Thread Grass

MIXED

Tufted Evening Primrose and Indian Ricegrass

Sidewalk

Boulder

The cookies, etc. such as shells, stones or sand natural noise features

Scale: 1 inch = 5 feet

This garden = 45'x30'
Sensory Garden

Tufted Evening Primrose

Blue Mountain Buckwheat

Idaho Fescue

Indian Ricegrass

Wooly Sunflower

Needle and Thread Grass
Sensory Garden

Narrow-leaf Milkweed

Blazing Star

Sticky Geranium

Rosy Pussytoes

Little-flower Penstemon

Serviceberry
Sensory Garden

- Golden Currant
- Purple Sage
- Bitterbrush
- Sagebrush
- Prairie Smoke
- Mountain Mahogany
Outreach
Sculpture, design and art in interpretive panels adds personality to your garden. Art can highlight your garden theme and attract visitors who may not initially notice the purpose of a native garden. Incorporating local artists and designers if you have funding supports your local arts community. Interpretive features are valuable in educating visitors on the importance of native plants for providing wildlife habitat.
Pot art at an elementary school experimental garden.

Entrance arch at the Children’s Garden, Id. Botanical Garden.

Interpretive sign mounted on planted box
Sign Concepts and Design
Interpretive and/or informational signs identify your garden and help the public understand its function, particularly if your garden is different from neighboring gardens. You will need to consider the following factors when deciding on how to identify or interpret your garden:

- Who is your audience? If you are hoping to attract the attention of school age children you will want to adjust your sign height to a readable range and make sure your graphics and language are engaging for the target age.
- Create an introductory sign with a map of the garden, list of partners, and garden purpose.
- Avoid reds and browns that will fade in the sun.
- Create a visual hierarchy with image sizes and text sizes that clarifies your message.
- Leave some blank space for text on the signs and along the edges.
- Avoid a collage of equal size photos and text boxes.
- Limit your sign to no more than 150 words and avoid placing them on top of a busy photo or texture.
- Orient your signs away from direct sun, south-facing aspects, and irrigation spray.
- Leave an unplanted buffer around the sign to prevent the sign from being obscured by vegetation.
- Install supporting posts approximately 1.5 to 2 feet underground and in concrete footings.
- Mount your sign on planter box or mount it into a pedestal frame.
- When using upright sign pedestals, think about a comfortable reading height of your audience. Designing curved or shaped signs and pedestals “outside the box” will draw people’s attention.
**Section D**

**Implementation**

It is important to know the sequence of events, what help you will need, and the tools you will need before you start your garden project. This is particularly good information to share with your team and all those affected by the project. Adding a date column will be necessary for facilities and operations staff if you are at a school.

Always know what is underground before you start digging. Utilities can sometimes be located at a surprisingly shallow depth. An example of a site plan is provided below. You may have fewer steps involved if you are creating a private or smaller garden.

**Planning Calculations**

It is easy to plant too densely when using small plants from the nursery. Particularly with shrubs and grasses, leave enough space between plants so that they can grow to maturity. When planning planting density or calculating numbers of plants to purchase, use the following guidelines.

**Plant Calculations**

- Perennial grass and flowers: In general 1 plant per 2 square feet. Check individual growth requirements.
- Trees and Shrubs: 1 per 8 square feet
- The area to be planted in square feet is divided by the distance apart in square feet or
  \[ A \div D = \text{Number of plants} \]
- The distance generally is 1.5 feet apart for slow spreading plants and 2 feet apart for medium spreading plants, 3 feet apart for fast spreaders, and 8 feet apart for trees and shrubs.

**Mulch Calculations**

- A good mulch for native plants is crushed rock (e.g. decomposed granite, chat, or pea gravel) that drains water well and mimics natural seed beds for many plants. This type of mulch is often called decomposed granite, chat, or manufactured sand and is inexpensive and easily available. Pea gravel is also a good choice for native gardens. When ordering, err on the side of excess so that you will have an adequate depth to deter weeds. For large gardens, using a conveyed material truck to distribute the mulch is advised.

- Calculate depth in feet, then calculate quantities of mulch or soil. (planting area in ft² x depth of mulch in feet\(^*\)) ÷ 27 ft³/yd³ = yd³
- A layer of mulch 3 inches deep over a project area of 1,000 ft² would require 250 ft³ or 9.25 yd³ of mulch.
- The online calculator is helpful at: www.globalrph.com/start/landscape.htm
Site Preparation
Turf grass is extremely competitive with native plants and will need to be removed in order to have a more compatible ground cover and mulch. Once your sod is removed you can install your plants and cover them with a thick layer of fine gravel or decomposed granite mulch or a bark mulch. This type of mulch will allow water to soak into the soil and your plants’ roots.

Removing Sod
There are several ways to eliminate turf before you plant. The quickest way is to hire someone to cut the sod out with a sod cutter machine or rent one yourself. If the soil is compacted or grass has been on the site for a long time, consider hiring professionals to bring in quality machines to cut the sod, rather than renting and performing this yourself. Once the sod is cut, it can be rolled and stacked to form berms or create elevation change throughout your garden. If you are creating an amphitheater for seating in a larger school or community garden, this is a good use of your sod to build up height. Be aware that the sod will decompose and settle over time. Stack your sod at least a third higher than you want the final height of the berm. Covering the stacked sod with permeable black landscape fabric will help speed the decomposition process.

A second way to eliminate sod is to solarize the grass. This process takes about six weeks and should occur during hot summer months. First cut the grass very short then water until soil is saturated 1-2 feet deep. Cover the sod with 3-4 mil clear plastic, extending the plastic 6-8 inches over the edge of the grass. Anchor the plastic with rocks, bricks, or wood. Remove the plastic and plant into dead sod or add another layer of topsoil. Do not till the soil because it could expose buried weed seeds and stimulate their growth.

Students ready to plant!
Sod-cutting Machine

Plastic Solarization
Irrigation

Native gardens require only 10% of the water used to maintain a grass lawn, but they still need supplemental water while they are getting established and during the long, hot summer months. In general, drip irrigation is best suited to small gardens or gardens with widely-spaced plantings. Overhead watering is best for gardens that are densely planted with little space between plants.

**DRIP IRRIGATION SYSTEM OPTION**

**ADVANTAGES**
- Highly water efficient.
- Only waters select plants, thus discouraging weeds.
- Water flow to plants is adjustable for plants with different water requirements.

**DISADVANTAGES**
- Harder to detect a leak or malfunction in the system.
- More time intensive to install.
- Drip lines can become tripping hazards if used by students.

**OVERHEAD IRRIGATION SYSTEM OPTION**

**ADVANTAGES**
- Waters a large area.
- Easy to detect if the system is malfunctioning.
- Easier to install than drip.

**DISADVANTAGES**
- Less water efficient than drip.
- Can promote weeds since the whole area is watered.
- Sprinkler heads can become blocked as plants grow resulting in dry zones.

**HAND WATERING OPTION**

**ADVANTAGES**
- No or little expense compared to an irrigation system.
- No system maintenance.
- Ability to adjust the amount of water each plant needs.
- More of a connection with the garden.

**DISADVANTAGES**
- Need a nearby water source and a hose that will reach all parts of the garden.
- Time spent watering the garden.
- Not as water efficient as a drip system.

**Planting Tip:**
*Plant in damp soil, group plants by their water requirements and water deeply immediately after planting.*

**NEW PLANTING** (up to 6 months)

1. Deep soak every 2-3 weeks running sprinklers for several hours to achieve a 1-1.5 inches of water. Check the sprinkler head rate to determine how long to run to achieve 1 - 1.5 inches.
2. Sprinkle lightly 1 or 2 times per week for about 5 minutes to cool the soil and lightly moisten the soil surface.

**ESTABLISHED PLANTINGS** (6 months onward)

1. Deep soak every 3-4 weeks running sprinklers for several hours to achieve a 1-1.5 inches of water. Check the sprinkler head rate to determine how long to run to achieve 1 - 1.5 inches.
2. Sprinkle lightly once per week for about 5 minutes to cool the soil and lightly moisten the soil surface.

**WATERING SYSTEMS**

There are advantages and disadvantages of different watering systems for your garden. Examples to consider are listed next.
Weed Barrier
There are advantages and disadvantages to using weed barrier in your garden.

ADVANTAGES
• It is effective in the short term at suppressing the germination and establishment of weeds already present in the soil.

DISADVANTAGES
• Holes in the fabric meant to let water through can become clogged with dust and irrigation water minerals creating dead zones in the soil below.
• Ground-nesting pollinators attracted to your garden cannot penetrate the fabric to create nests.
• Earthworms, important for soil health, cannot move through the fabric.
• Exposed weed barrier can be unsightly.
Mulch

If you are installing a garden at a school in Boise the district’s preferred mulch material is “chat” which is a type of decomposed granite. The benefits of chat are that it is wheelchair friendly, allows for germination of many native plant seeds in your garden, is inexpensive, and has good drainage. In other situations, you can use a larger gravel mulch or a bark mulch.

ADVANTAGES of a larger rock mulch
• fewer fines for weed germination.
• rarely needs to be added to over the years.

DISADVANTAGES of larger gravel mulch
• difficult to walk on.
• natural germination and recruitment of garden plants is less likely.

ADVANTAGES of bark mulch
• easily available
• small bark pieces eventually decompose to build soil.

DISADVANTAGES of bark mulch
• needs to be replenished more frequently.
• does not mimic natural growing conditions for xeric plants.
• expensive
• can scatter during windstorms.
• may be used by outdoor cats as cat litter.
**Example of an Implementation Plan**

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>WHO IS NEEDED</th>
<th>MATERIALS &amp; EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sod Cut</td>
<td>Garden Committee and Volunteers</td>
<td>2 Sod Cutters, 3 Wheelbarrows, Truck And Trailer to haul away sod</td>
</tr>
<tr>
<td>Locate Utilities, call DIGLINE at 811 before digging</td>
<td>Dig Line Staff and City</td>
<td></td>
</tr>
<tr>
<td>Mark Sign Post Locations</td>
<td>Garden Committee</td>
<td>Pin Flags, Spray Paint</td>
</tr>
<tr>
<td>Mark Paths and Berm Outline</td>
<td>Garden Committee</td>
<td>Pin Flags, Spray Paint</td>
</tr>
<tr>
<td>Install Irrigation</td>
<td>Maintenance Staff</td>
<td>Irrigation Supplies</td>
</tr>
<tr>
<td>Deliver and Install Boulders</td>
<td>Garden Committee and 4 Volunteers</td>
<td>Truck with Crane Arm, Shovels</td>
</tr>
<tr>
<td>Install Planter Boxes along Walkway</td>
<td>Garden Committee and Skilled Labor</td>
<td>TBD</td>
</tr>
<tr>
<td>Deliver Soil and Install Berm</td>
<td>Garden Committee and 10 Volunteers</td>
<td>Skidsteer, Wheelbarrows, Shovels, Tarps</td>
</tr>
<tr>
<td>Deliver and Install Plants</td>
<td>Garden Committee and 10-20 Volunteers</td>
<td>Shovels, Trowels, Hose, Water Cans</td>
</tr>
<tr>
<td>Deliver Decomposed Granite Mulch</td>
<td>Garden Committee</td>
<td>Conveyor Rock Truck</td>
</tr>
<tr>
<td>Spread Mulch</td>
<td>Garden Committee and Volunteers</td>
<td>Skidsteer, Wheelbarrows, Shovels and Tarps</td>
</tr>
</tbody>
</table>
Material Resources

PLANTS
Draggin’ Wing Nursery, 208-345-4199
http://waterthriftyplants.com/
5300 Stinger Dr.
Boise, ID 83703

Edwards Nursery, 208-342-7548
https://www.edwardsgreenhouse.com/
4106 Sand Creek
St. Boise, ID 83703

FarWest Nursery, 208-853-4000
http://farwestgardencenter.net/
5728 W. State St.
Boise, ID 83703

Buffalo Berry Farm, 208-634-3062
http://buffaloberryfarm.com/
51 East Lake Fork
Road, McCall, ID, 83636

Plants of the Wild, 509-284-2848
http://www.plantsofthewild.com/
P.O. Box 866,
Tekoa, WA, 99033

Idaho Native Plant Society
Native Plant Sale
https://idahonativeplants.org/pahove/
MK Nature Center, Boise, ID.

College of Western Idaho Plant Sale
http://cwidaho.cc/program/horticulture-technology
College of Western Idaho, Nampa, ID.

SOIL
Cloverdale Nursery, 208-375-5262
http://www.cloverdalenursery.com/
2528 N. Cloverdale Rd.
Boise, ID, 83713

Edwards Greenhouse, 208-342-7548
http://www.edwardsgreenhouse.com/
4106 Sand Creek
St. Boise, ID 83703

North End Nursery, 208-389-4769
http://www.northendnursery.com/
3777 W. Chinden
Blvd., Garden City, ID 83714

LANDSCAPE DESIGN
College of Western Idaho,
Department of Horticulture
2444 Old Penitentiary Rd.
Boise, ID 83712

Xeric Gardening, 208-850-9981
xericgardening@hotmail.com

FarWest Garden Center, 208-853-4000
http://farwestgardencenter.net/
5728 W. State St.
Boise, ID 83703

ROCK (Boulders)
Rock Placing Company, 208-855-2277
http://www.rockplacingco.com/
513 West Franklin
Rd. Meridian, ID 83713

GRAVEL (and Chat)
Ruschman’s Sand and Gravel, 208-331-9222
http://ruschmansandandgravel.net/
9400 Pleasant Valley Rd.,
Boise, ID 83705

Ada Sand and Gravel, 208-368-0100
http://adasandandgravel.com/
9501 S. Pleasant Valley Rd.,
Boise, ID 83705

Victory Greens, 208-888-5551
http://www.victorygreens.com/
100 E. Victory Rd.,
Meridian, ID 83642

METAL WORK
Professional Technical/Dennis Education Center
208-854-5810
http://protech.boiseschools.org/
8201 W. Victory
Rd., Boise, ID 83709
Section E
Maintenance Activities

Just like grass lawns, gardens require maintenance. Although your garden will require less weekly labor and water than a lawn, it still will need tending on a regular basis to keep it tidy. Making these maintenance activities part of a “garden party” keeps the work sociable and enjoyable. Spring weeding and spring/fall pruning will be your two top maintenance activities along with regular checks throughout the growing season for emerging weeds. For school and community gardens, two things will help sustain your native garden over time, 1.) a maintenance plan or schedule and 2.) a commitment from staff or volunteers to participate. Keep a binder on-site that gives new garden coordinators the tools to succeed. This should include a photographic list of plants in the garden, a copy of the garden design, and a maintenance schedule for watering, weeding and pruning. It can be confusing for volunteers to know what to weed and what to keep so a good way to start the maintenance sessions is with a short training. Refer to your map of the garden and plant markers to help you identify what you planted and what is a weed. A description of the common maintenance activities is listed below as well as an example of a maintenance schedule for a native garden.

*Maintenance tips for specific plants are included in the master plant list on page 52.*
Weeding
If you have applied a thick (2-4 inch) layer of gravel mulch you likely won’t have many weeds to worry about the first growing season. Weeds often increase the second and third year. Diligence in these first couple of years will help moderate weed occurrence in later years. A likely weeding schedule would be two weeding sessions in the early summer and two in the fall as needed.

Pruning and Thinning
Fall is a good time to assess the structure of the garden when plants are mature and done growing for the season. If large shrubs are present, look for crowding of plants and prune as needed. Look for new starts and seedlings that may need to be moved to different parts of the garden to fill in holes. Asters are especially prolific and may need to be thinned to maintain overall diversity. In general, leave flowering stalks and stems until spring. Wildlife such as birds will eat the seeds and many insects will use them as habitat. This will also help retain visual interest for your garden in the winter with a natural appearance.

Leave 6-12 inch stems for stem-nesting bees when pruning in spring or fall. Leave cuttings of hollow stemmed plants bundled on site. These can be used by stem nesting insects. Leave native plant flower heads to produce seed, thus providing food and habitat for wildlife.
Garden Maintenance Schedule

SPRING
• Prune woody shrubs and cut back perennials
• Plant new plants
• Transplant out of overgrown areas to bare areas
• Hand weed
• Use limited herbicide, optional
• Clean up general area

SUMMER
• Program irrigation system
• Adjust irrigation running time to suit weather
• Hand weed
• Dead head flowers that will rebloom
  (eg. blanketflowers and sundancer daisies)

FALL
Grasses and shrubs, left untrimmed in the fall, can provide winter interest for humans and food and shelter for birds and insects. Grasses and other perennials can be trimmed back in the spring.
• Transplant from overgrown areas into bare areas
• Prune and shape shrubs and trees
• Hand weed

EXAMPLE GARDEN MAINTENANCE PLAN

WATERING
• Timer is located in green box on east side of garden
• Check battery each spring
• Set watering schedule to run each station for 30 minutes once a week at 5 am.
• Check garden irrigation heads for leaks or breaks every couple of weeks.

WEEDING
• Email garden volunteers and post a notice in school newspaper for one weeding session in the spring, two in summer, and one in fall.
• Use garden maps to show volunteers.
• Use photos of target weeds to show volunteers during weeding parties.
• Leave leaf litter on the ground in the fall to protect overwintering insects in the soil.

PRUNING
• Thin Syringa shrubs according to diagram in spring.
• Thin and prune back lemonade bush when it extends over pathway.
• Trim back perennial flower stems in spring leaving approximately 1 ft of stubble for tall hollow stemmed plants.
• Prune rabbitbrush in the spring leaving about 1/3 of the plant untrimmed.

Rabbitbrush should be pruned back hard in the spring, leaving about 1/3 of the plant untrimmed. If you have a dwarf variety of rabbitbrush you will not need to prune it back.
Remove These Weeds

- Bindweed
- Bulbous bluegrass
- Cheatgrass
- Cheeseweed
- Dandelion
- Kochia
Orchard grass

Prickly lettuce

Puncture vine

Purslane

Russian thistle

Siberian elm

Spotted spurge

Storksbill
# Section F Master Plant List

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height (inches; feet)</th>
<th>Flower Color</th>
<th>Flowering Period</th>
<th>Light Requirement</th>
<th>Moisture Requirement</th>
<th>Special Considerations</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Agastache urticifolia</em></td>
<td>Nettleshell giant hyssop</td>
<td>5 ft</td>
<td>White-purple</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Medium</td>
<td>Aromatic foliage.</td>
<td>Trim back old flower stems in spring.</td>
</tr>
<tr>
<td><em>Anaphalis margaritacea</em></td>
<td>Pearly everlasting</td>
<td>1-3 ft</td>
<td>White</td>
<td>Summer - Fall</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td>Numerous fluffy seed heads that are good for winter interest; rhizomatous; ground cover</td>
<td>Trim back old flower stems in spring.</td>
</tr>
<tr>
<td><em>Antennaria microphylla</em></td>
<td>Littleleaf pussytoes</td>
<td>1 ft</td>
<td>White</td>
<td>Spring - Summer</td>
<td>Sun Part Shade</td>
<td>Low</td>
<td>Ground cover</td>
<td>Trim back old flower stems in spring.</td>
</tr>
<tr>
<td><em>Antennaria rosea</em></td>
<td>Rosy pussytoes</td>
<td>8 in</td>
<td>Pink - white</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Low</td>
<td>Ground cover</td>
<td>Trim back old flower stems in spring.</td>
</tr>
<tr>
<td><em>Aquilegia caerulea</em></td>
<td>Colorado blue columbine</td>
<td>12-30 in</td>
<td>Blue White</td>
<td>Summer</td>
<td>Part Shade</td>
<td>Medium-high</td>
<td></td>
<td>Trim back old flower stems in spring.</td>
</tr>
<tr>
<td><em>Aquilegia formosa</em></td>
<td>Western columbine</td>
<td>2-3 ft</td>
<td>Red Yellow</td>
<td>Summer</td>
<td>Part Shade</td>
<td>Medium-high</td>
<td></td>
<td>Trim back old flower stems in spring.</td>
</tr>
<tr>
<td><em>Arctostaphylos uva-ursi</em></td>
<td>Kinnikinnick Bearberry</td>
<td>&lt; 6 in</td>
<td>White - pink</td>
<td>Spring - Summer</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td>Evergreen. Ground cover.</td>
<td></td>
</tr>
<tr>
<td><em>Arnica mollis</em></td>
<td>Hairy arnica</td>
<td>2 ft</td>
<td>Yellow</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Low</td>
<td></td>
<td>Trim back current year flower stems in the fall. May use string trimmer.</td>
</tr>
<tr>
<td><em>Artemisia frigida</em></td>
<td>Fringed sage</td>
<td>4-16 in</td>
<td>Yellow</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td>Readily spreads when overwatered.</td>
<td></td>
</tr>
<tr>
<td><strong>Common Name</strong></td>
<td><strong>Scientific Name</strong></td>
<td><strong>Height</strong></td>
<td><strong>Bloom Time</strong></td>
<td><strong>Light Needs</strong></td>
<td><strong>Height</strong></td>
<td><strong>Notes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Asclepias fascicularis</strong></td>
<td>Narrow-leafed milkweed</td>
<td>2-3 ft</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td>Will spread through garden.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Asclepias incarnata</strong></td>
<td>Swamp milkweed</td>
<td>4-6 ft</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Medium</td>
<td>Trim back old flower stems in late fall or spring.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Asclepias speciosa</strong></td>
<td>Showy milkweed</td>
<td>3-5 ft</td>
<td>Spring - Fall</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td>Will spread through garden.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chaenactis douglasii</strong></td>
<td>Douglas’ dusty maiden</td>
<td>1 ft</td>
<td>Spring - Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Chamerion angustifolium ssp. circumvagum</strong></td>
<td>Fireweed</td>
<td>3 - 6 ft</td>
<td>Summer - Fall</td>
<td>Sun - Shade</td>
<td>Medium</td>
<td>Fluffy seed heads in Fall. Place in back of garden. Can spread.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cleome lutea</strong></td>
<td>Yellow bee plant</td>
<td>2-3 ft</td>
<td>Spring - Summer</td>
<td>Sun</td>
<td>Low</td>
<td>Annual that will reseed itself the following year.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cleome serrulata</strong></td>
<td>Rocky Mountain bee plant</td>
<td>3 ft</td>
<td>Summer - Fall</td>
<td>Sun</td>
<td>Low</td>
<td>Annual that will reseed itself the following year.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dalea ornata</strong></td>
<td>Blue Mountain prairie clover</td>
<td>1.5 ft</td>
<td>Spring - Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Epilobium canum</strong> spp. garrettii (Zauschneria)</td>
<td>Hummingbird trumpet/Garrett’s firechalice</td>
<td>1-2 ft</td>
<td>Summer - Fall</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Erigeron compositus</strong></td>
<td>Cutleaf daisy</td>
<td>6 in</td>
<td>Spring and Fall</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Erigeron linearis</strong></td>
<td>Desert yellow fleabane</td>
<td>6 in</td>
<td>Summer</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Erigeron pumilus</strong></td>
<td>Shaggy fleabane</td>
<td>8 in</td>
<td>Summer</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Erigeron speciosus</strong></td>
<td>Showy fleabane</td>
<td>2 ft</td>
<td>Early Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Erigeron subulatus</strong></td>
<td>Threenerve fleabane</td>
<td>2 ft</td>
<td>Early Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Trimming Notes:**
- Trim back old flower stems in late fall or spring.
- Trim seed pods in late fall and thin interior branches when the shrub becomes dense.
- Trim off seedheads for birds. Remove canescens.
- Trim edges to maintain shape.
- Trim back entire plant in early winter or spring.
- Trim back old flower stems in spring.
- Trim off seed pods in late fall and scatter in garden if more plants are wanted. Remove stalks if unsightly.
- Trim back old flower stems in spring. If plant spreads into unwanted areas, thin growth throughout the season.
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Flower Color</th>
<th>Flowering Period</th>
<th>Light Requirement</th>
<th>Moisture Requirement</th>
<th>Special Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eriogonum</td>
<td>Arrowleaf</td>
<td>1-1.5 ft</td>
<td>Yellow</td>
<td>Spring</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Eriogonum heracleoides</td>
<td>Parsnip-flower buckwheat</td>
<td>1-1.5 ft</td>
<td>White-cream</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Eriogonum strictum</td>
<td>Blue Mountain buckwheat</td>
<td>1.5 ft</td>
<td>White</td>
<td>Fall</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Eriogonum umbellatum</td>
<td>Sulphur-flower buckwheat</td>
<td>1 ft</td>
<td>Yellow</td>
<td>Summer</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Eriophyllum lanatum</td>
<td>Woolly sunflower</td>
<td>3-6 in</td>
<td>Yellow</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Erysimum capitatum</td>
<td>Sanddune wallflower</td>
<td>1 ft</td>
<td>Orange-Yellow</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
</tr>
<tr>
<td>Gaillardia aristata</td>
<td>Blanketflower</td>
<td>2 ft</td>
<td>Red-Orange-Yellow</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td>Deadheading spent flowers during the season will extend flowering period.</td>
</tr>
<tr>
<td>Geranium viscosum</td>
<td>Sticky geranium</td>
<td>2 ft</td>
<td>Pink</td>
<td>Spring-Summer</td>
<td>Sun Part Shade</td>
<td>Low</td>
<td>Foliage turns red in fall.</td>
</tr>
<tr>
<td>Geum triflorum</td>
<td>Prairie smoke</td>
<td>1 ft</td>
<td>Rose-red</td>
<td>Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
</tr>
<tr>
<td>Hedysarum boreale</td>
<td>Utah sweetvetch</td>
<td>8 in</td>
<td>Purple Rose</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
</tr>
<tr>
<td>Helianthus annuus</td>
<td>Annual sunflower</td>
<td>5-6 ft</td>
<td>Yellow</td>
<td>Summer-Fall</td>
<td>Sun</td>
<td>Low-medium</td>
<td>Annual that will reseed itself the following year.</td>
</tr>
<tr>
<td>Helianthus nuttallii</td>
<td>Nuttall's sunflower</td>
<td>4-6 ft</td>
<td>Yellow</td>
<td>Summer-Fall</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
</tr>
<tr>
<td>Heliomeris multiflora var. multiflora</td>
<td>Showy goldeneye</td>
<td>1 ft</td>
<td>Yellow</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td>Can spread.</td>
</tr>
<tr>
<td>Plant Name</td>
<td>Common Name</td>
<td>Height</td>
<td>Bloom Time</td>
<td>Sun Tolerance</td>
<td>Growth Habit</td>
<td>Comments</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
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<td></td>
</tr>
<tr>
<td><em>Heterotheca villosa</em></td>
<td>Hairy false goldenaster</td>
<td>1.5 ft</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Heuchera cylindrica</em></td>
<td>Roundleaf alumroot</td>
<td>1 ft</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Low</td>
<td>Evergreen</td>
<td></td>
</tr>
<tr>
<td><em>Hymenoxys hoopesii</em></td>
<td>Owl’s-claws</td>
<td>1 ft</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Ipomopsis aggregata</em></td>
<td>Scarlet gilia</td>
<td>1 ft</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Machaeranthera canescens</em></td>
<td>Hoary tansyaster</td>
<td>1-2 ft</td>
<td>Summer-Fall</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Mentzelia laevicaulis</em></td>
<td>Smoothstem blazingstar</td>
<td>1-3 ft</td>
<td>Summer</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Monarda fistula</em></td>
<td>Wild bergamot</td>
<td>2-3 ft</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Monardella odoratissima</em></td>
<td>Coyote mint</td>
<td>1 ft</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td>Aromatic foliage.</td>
<td></td>
</tr>
<tr>
<td><em>Oenothera caespitosa</em></td>
<td>Tufted evening primrose</td>
<td>6 in</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Very low</td>
<td>Aromatic flowers open in early evening.</td>
<td></td>
</tr>
<tr>
<td><em>Oenothera pallida</em></td>
<td>Pale evening primrose</td>
<td>1 ft</td>
<td>Summer</td>
<td>Sun</td>
<td>Very low</td>
<td>Aromatic flowers open in early evening.</td>
<td></td>
</tr>
<tr>
<td><em>Penstemon acuminatus</em></td>
<td>Sharpleaf penstemon</td>
<td>1.5 ft</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Penstemon cyananthus</em></td>
<td>Wasatch penstemon</td>
<td>1 ft</td>
<td>Spring-Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Height</td>
<td>Flower Color</td>
<td>Flowering Period</td>
<td>Light Requirement</td>
<td>Moisture Requirement</td>
<td>Special Considerations</td>
</tr>
<tr>
<td>---------------------------------</td>
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<td>-------------------</td>
<td>----------------------</td>
<td>-----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Penstemon deustus</td>
<td>Hot rock penstemon</td>
<td>1 ft</td>
<td>White</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Penstemon fruticosus</td>
<td>Shrubby penstemon</td>
<td>12-16 in</td>
<td>Pink</td>
<td>Spring - Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Penstemon procerus</td>
<td>Little flower penstemon</td>
<td>1 ft</td>
<td>Purple</td>
<td>Spring</td>
<td>Sun</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Penstemon rydbergii</td>
<td>Rydberg's penstemon</td>
<td>1-2 ft</td>
<td>Blue - Purple</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Penstemon speciosus</td>
<td>Royal penstemon</td>
<td>2 ft</td>
<td>Blue</td>
<td>Spring - Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
</tr>
<tr>
<td>Penstemon whippleanus</td>
<td>Whipple's penstemon</td>
<td>2 ft</td>
<td>Dark Purple</td>
<td>Summer - Fall</td>
<td>Part Sun</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Solidago canadensis</td>
<td>Canada goldenrod</td>
<td>3-6 ft</td>
<td>Yellow</td>
<td>Fall</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td>Spreads readily when overwatered</td>
</tr>
<tr>
<td>Solidago spectabilis</td>
<td>Nevada goldenrod</td>
<td>3-6 ft</td>
<td>Yellow</td>
<td>Summer - Fall</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td></td>
</tr>
<tr>
<td>Sphaeralcea spp.</td>
<td>Globemallow</td>
<td>20-40 in</td>
<td>Orange</td>
<td>Spring - Fall</td>
<td>Sun</td>
<td>Low</td>
<td>Trimming back spent flowers in summer can extend the flowering period.</td>
</tr>
<tr>
<td>Symphyotrichum ericoides (Aster ericoides)</td>
<td>White heath aster/snowflurry</td>
<td>6 in</td>
<td>White</td>
<td>Fall</td>
<td>Sun</td>
<td>Low</td>
<td>Spreads</td>
</tr>
<tr>
<td>Symphyotrichum spathulatum (Aster occidentalis)</td>
<td>Western mountain aster</td>
<td>1.5 ft</td>
<td>Yellow Violet</td>
<td>Summer</td>
<td>Sun</td>
<td>Low-medium</td>
<td></td>
</tr>
</tbody>
</table>

**FLOWERS**

Trim back old flower stems in late fall or spring. If stems trimmed in fall can scatter seed capsules to generate more plants.
<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Color</th>
<th>Bloom Time</th>
<th>Sun Req</th>
<th>Water Req</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Tetraneuris acudis</em></td>
<td>Sundancer daisy</td>
<td>1 ft</td>
<td>Yellow</td>
<td>Summer</td>
<td>Sun Part shade</td>
<td>Low</td>
<td>Will bloom all season if spent flowers are trimmed away.</td>
</tr>
<tr>
<td><em>Achnatherum hymenoides</em></td>
<td>Indian ricegrass</td>
<td>1-2 ft</td>
<td>Green</td>
<td>Spring</td>
<td>Sun</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td><em>Leymus cinereus</em></td>
<td>Basin wildrye</td>
<td>3 - 6 ft</td>
<td>Green</td>
<td>Spring</td>
<td>Sun</td>
<td>Low</td>
<td>Up to 3 ft wide. Does best in full sun.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Trim back old flower stems in spring.</td>
</tr>
<tr>
<td><em>Festuca idahoensis</em></td>
<td>Idaho fescue</td>
<td>1 ft</td>
<td>Green</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td><em>Hesperostipa comata</em></td>
<td>Needle and thread grass</td>
<td>2 ft</td>
<td>Green</td>
<td>Spring</td>
<td>Sun</td>
<td>Low</td>
<td>Can be direct seeded in late fall.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If excessive dead material accumulates, trim plant back by 2/3 in spring.</td>
</tr>
<tr>
<td><em>Pseudoroegneria spicata</em></td>
<td>Bluebunch wheatgrass</td>
<td>2 ft</td>
<td>Green</td>
<td>Summer</td>
<td>Sun</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Height</td>
<td>Flower Color</td>
<td>Flowering Period</td>
<td>Light Requirement</td>
<td>Moisture Requirement</td>
<td>Special Considerations</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>----------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Artemisia tridentata ssp. vaseyana</td>
<td>Mountain big sage</td>
<td>6 ft</td>
<td>Yellow</td>
<td>Fall</td>
<td>Sun</td>
<td>Very low</td>
<td>Be cautious of overwatering</td>
</tr>
<tr>
<td>Chamaebatiaria millefolium</td>
<td>Fernbush</td>
<td>5 ft</td>
<td>White</td>
<td>Summer</td>
<td>Sun</td>
<td>Very low</td>
<td>Aromatic foliage.</td>
</tr>
<tr>
<td>Chrysothamnus viscidiflorus</td>
<td>Yellow rabbitbrush</td>
<td>2-3 ft</td>
<td>Yellow</td>
<td>Summer - Fall</td>
<td>Sun</td>
<td>Low</td>
<td>In the Spring trim plant back by 2/3</td>
</tr>
<tr>
<td>Cornus sericea</td>
<td>Red osier dogwood</td>
<td>7-10 ft</td>
<td>White</td>
<td>Spring</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td>Red stems for winter interest</td>
</tr>
<tr>
<td>Ericameria nauseosa</td>
<td>Rubber rabbitbrush</td>
<td>2-3 ft</td>
<td>Yellow</td>
<td>Summer - Fall</td>
<td>Sun</td>
<td>Low</td>
<td>*Use a dwarf variety</td>
</tr>
<tr>
<td>Krascheninnikovia lanata</td>
<td>Winterfat</td>
<td>2-3 feet</td>
<td>White Silver</td>
<td>Spring - Summer</td>
<td>Sun</td>
<td>Very low</td>
<td>Wooly white foliage with fluffy white seed heads in fall and winter.</td>
</tr>
<tr>
<td>Mahonia repens</td>
<td>Creeping Oregon grape</td>
<td>2 ft</td>
<td>Yellow</td>
<td>Spring</td>
<td>Sun Shade</td>
<td>Low-medium</td>
<td>In early Spring trim back plant by at least 1/2.</td>
</tr>
<tr>
<td>Philadelphus lewisii</td>
<td>Mock orange</td>
<td>4-10 ft</td>
<td>White</td>
<td>Spring</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td>Thin interior stems in spring when the shrub becomes dense.</td>
</tr>
<tr>
<td>Purshia tridentata</td>
<td>Bitterbrush</td>
<td>4-6 ft</td>
<td>Yellow</td>
<td>Spring</td>
<td>Sun</td>
<td>Very low</td>
<td>Be cautious of overwatering</td>
</tr>
<tr>
<td>Rhus trilobata</td>
<td>Skunkbush sumac</td>
<td>5-6 ft</td>
<td>Yellow</td>
<td>Spring</td>
<td>Sun</td>
<td>Low</td>
<td>Trim edges to maintain shape and thin interior branches when shrub becomes dense.</td>
</tr>
<tr>
<td><strong>Ribes aureum</strong></td>
<td>Golden currant</td>
<td>5 ft</td>
<td>Yellow</td>
<td>Spring</td>
<td>Sun Part Shade</td>
<td>Low-medium</td>
<td>Edible fruits.</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------</td>
<td>------</td>
<td>--------</td>
<td>--------</td>
<td>----------------</td>
<td>------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Salvia dorrii</strong></td>
<td>Purple sage</td>
<td>2-3 ft</td>
<td>Blue Purple</td>
<td>Spring - Summer</td>
<td>Sun</td>
<td>Low</td>
<td>Evergreen and aromatic silver foliage.</td>
</tr>
<tr>
<td><strong>Symphoricarpos albus and S. oreophilus</strong></td>
<td>Snowberry</td>
<td>4 ft</td>
<td>White Pink</td>
<td>Summer</td>
<td>Sun Part Shade</td>
<td>Medium</td>
<td>Thin interior stems in spring when the shrub becomes dense.</td>
</tr>
</tbody>
</table>

**TREES**

| **Acer glabrum** | Rocky Mountain maple | 6-20 ft | Green | Spring | Sun Part Shade | Low-medium | | Trim edges to maintain shape and thin interior branches when shrub becomes dense. |
| **Amelanchier alnifolia** | Saskatoon Serviceberry | 6-12 ft | White | Summer | Sun Part Shade | Medium | | |
| **Cercocarpus ledifolius** | Curl-leaf mountain mahogany | 10-15 ft | Yellow | Spring | Sun | Very low | Slow-growing shubby tree | Can be pruned to tree shape by removing lower branches or kept as multi-stemmed shrub. |
| **Juniperus occidentalis** | Western juniper | 33 feet | NA | Spring | Sun | Low | Evergreen | |
| **Prunus virginiana** | Black chokecherry | 10-15 ft | White | Spring | Sun Part Shade | Low-medium | Vigorous stem and branch developer | Remove low spreading branches. Can be pruned in late winter to tree shape or kept as multi-stemmed shrub. |
Resources

Websites
School garden webinar: https://sites.google.com/a/blm.gov/take-it-out-side/home/webinar-3---working-with-partners


Books
Asphalt to Ecosystems: Design Ideas for Schoolyard Transformation.
Sharon Gamson Danks.

Planting in a Post-Wild World: Designing Plant Communities for Resilient Landscapes.
Thomas Rainer and Claudia West.

Native Plants for High Elevation Western Gardens.
Janice Busco and Nancy R. Morin.

Larry Weaner and Thomas Christopher.

Attracting Native Pollinators: The Xerces Society Guide.

Pollinator Friendly Gardening: Gardening for Bees, Butterflies, and Other Pollinators.
Rhonda Fleming Hayes.

Moving the Classroom Outdoors.
Herbert W. Broda.

Butterfly Gardening with Native Plants. How to Attract and Identify Butterflies.
Christopher Kline.

Cover: Pollinator Garden, A. Hedrick