



**NAMPA**  
I D A H O

**WATER WISE LANDSCAPE**  
**— GUIDELINES —**





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## Acknowledgements:

- City of Nampa
  - » Mayor Debbie Kling
  - » Tom Points, *Senior Director of Public Works*
  - » Jeff Barnes, *Director of Water Resources*
  - » Nicole Fletcher, *Environmental Engineering Manager*
  - » Danial Badger, *City Engineer*
  - » Rodney Ashby, *Planning and Zoning Director*
  - » Doug Critchfield, *Principal Planner - Long Range*
  - » Amy Bowman, *Director of Communications*
  - » Kaitlyn Scott, *Public Works Communication Manager*
- Drought Task Force Members
- Kimley-Horn



## PURPOSE

This guide is a tool to assist in the reduction of irrigation water use for ornamental landscape within the City of Nampa. It is also to assist in the design and implementation of water wise practices to meet Nampa's water wise landscape goals. It is to be an educational guide to landscape and irrigation design that responds to the unique Boise River Watershed and more specifically to that of Nampa's place within the Treasure Valley.

## BENEFITS

There are many benefits of using water wise landscape practices including:

**Save Water and Money** - using plants that thrive in our area means they will be healthier and stronger, reducing water demands and financial inputs by requiring less care over time.

**Increased Curb Appeal** - plants that are suited for the area perform and look better longer.

**Habitat Creation** - native plantings can create spaces for small wildlife and pollinators like bees, birds and butterflies to thrive.

**Better for the environment** - using less water, fertilizer and pesticides is better for natural systems and air quality. Healthy adapted plants can pull in and store carbon.





## INTENT

The City of Nampa encourages beautiful, clean and well-maintained landscapes that promote the efficient and prudent use of irrigation. The City of Nampa's ordinances set forth minimum standards for development to achieve this.

The intent of this guideline is to clearly outline the goals, steps and requirements to successfully comply with city ordinances related to landscape design. Examples of plants, irrigation types, and soil treatments encourage innovation in design and helps applicants understand and respond to the area's conditions. This publication should provide guidance for both resident and commercial users.

“We all need to have a mindset of stewardship and use less water.”

Mayor Debbie Kling





## GOALS

New landscaping within Nampa (Idaho) should:

- Utilize irrigation water efficiently and reduce run-off onto impervious surfaces
- Create landscapes where plants can thrive, limiting planting loss and replacement
- Enhance the visual appearance of public space and streetscapes within the city and reinforce/improve the city's image and identity
- Encourage water conservation and aesthetic quality through creative design and innovation
- Sustain a diversity of plants suited to local conditions
- Support and improve the communities urban forest
- Establish opportunities for sustainable stormwater management
- Mitigate visual impacts between dissimilar uses through the use of landscape buffers





# 1. LANDSCAPE PROGRAM PRINCIPLES

## LANDSCAPE PLANNING AND DESIGN

It is best to start with the end in mind. In order to get the final results you want, we recommend starting with a focus on your:

- A) Site
- B) Soil
- C) Irrigation
- D) Plants

Plan for your landscape by setting goals based on what you WANT when you're done. This simple outline provides a guide process to planning landscapes:

- Identify what you HAVE
- Identify what you WANT
- Create a PLAN on how to get there.

This guideline is organized around the following planning and landscape design principles:

1. Landscape Program Principles
2. Site context and characteristics
3. Soil improvement
4. Efficient irrigation
5. Plant selection and use
6. Maintenance considerations



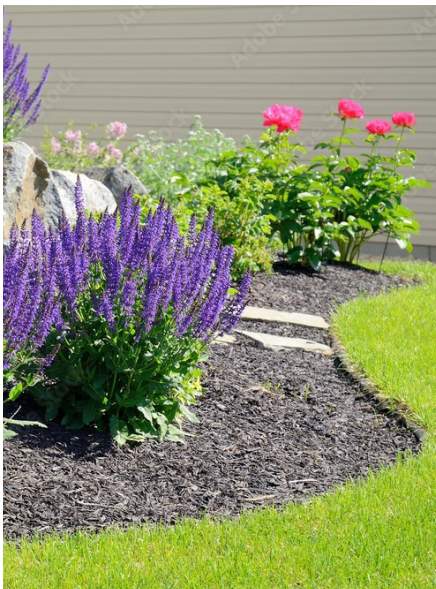
## TERMINOLOGY

The terms ornamental, native, natural, and water wise are often used, sometimes synonymously, when describing characteristics of plants and landscape. For this document we define them as follows:

- **Drought tolerant:** ability of a plant to live without supplemental irrigation for a period of time
- **Native:** from the local area
- **Natural:** having a look that is natural or like native but not necessarily from the local area
- **Ornamental:** typically a plant chosen primarily for it's ornamental value
- **Water Wise:** having characteristics that provide some water conservation based on need or alternative to another plant type or species
- **Xeric:** containing little water, or dry
- **Xeriscape** (not zeroscape): is the process of landscaping, or gardening, that reduces or eliminates the need for irrigation. Zeroscape is an often mispronounced term for xeriscape, referring to landscape treatments only containing rock materials with limited design and no plantings

For the purpose of this document we will identify shrubs and perennials in the following categories: **moderate**  and **low-water**  **use.**

**Performance** - measurable elements of the landscape that identify landscape performance success. **Example**- In order to reduce water use in the landscape, one must utilize measurement practices, establish a use baseline, adjust the system setting or management practices, observing outcomes, and repeat the process as needed to see desired results.







## 2. SITE CONTEXT AND CHARACTERISTICS

### STARTING WITH A STRONG FOUNDATION

At an elevation of 2,440-2,470 feet above sea level, Nampa, Idaho features a year round mild climate. This high desert city sits between the Front Range of the Rocky Mountains to the north and Owyhee Mountains to the south. Average precipitation is approximately 12 inches annually. Leaving 210 dry sunny days per year with relatively low humidity. The heat in Nampa lasts for about four months from June to September with an average daily high above 81 degrees Fahrenheit.

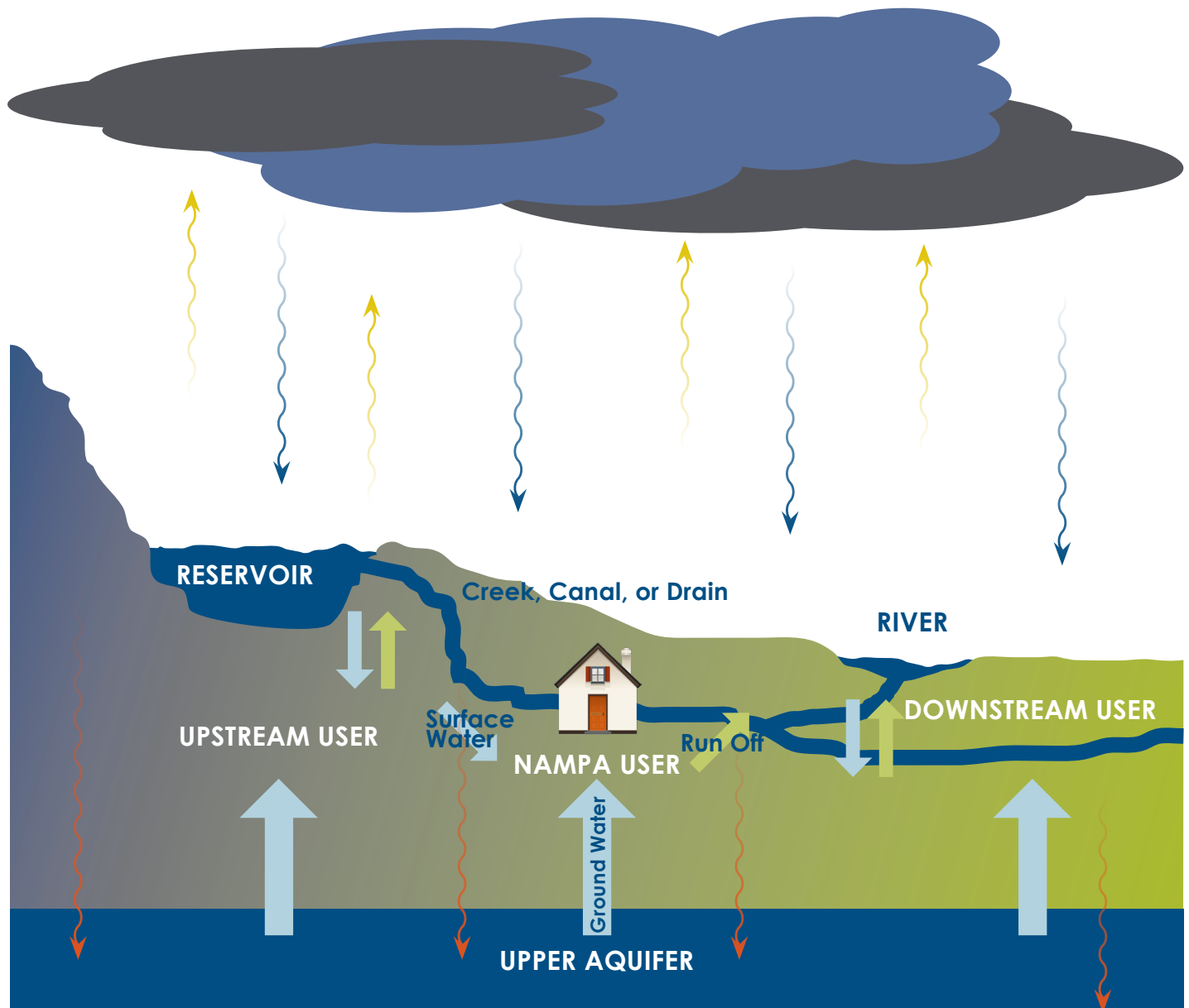
- **Site characteristics should be observed.** For example: What characteristics does your site have that will affect plant growth? Slope, sun exposure, soil properties, climate and seasons are just a few to consider.
- **Additional considerations** include utilities such as water, sewer and electrical. It is important to confirm provider and local code requirements for setback from and access to these areas for maintenance and service.
- **Stormwater systems**, including basins and ponds, should be included in the landscape design for the site. These areas provide opportunities to support overall site landscape goals while meeting code requirements.
- **Avoid covering or blocking signs** and vehicle movement sight lines. Careful consideration should be taken to ensure planting won't grow over time to block signs, obstruct sight views within the vision triangle for vehicle movement, or impact buildings or fences.
- **Considering safety is important.** Avoid landscape treatments that can become overgrown and cause circulation issues, create places to hide, or unsafe conditions. Crime can flourish in spaces that are perceived as vacant, unwatched, or hidden from view. Crime Prevention Through Environmental Design (CPTED) is an approach to environmental design that ensures that public spaces are designed in such a way to remove the opportunity for crime to happen. CPTED principles should be followed in all public landscape areas in the city, including encouraging natural surveillance, natural access control, and natural territorial reinforcement.

**Starting your plan:** Outline how you will address each of the site considerations outlined above. The following sections go into more detail on each additional principle.



## NAMPA'S IRRIGATION WATER CYCLE

**We all live downstream.** Run-off that contains organic material (e.g. lawn clippings, leaves, etc), fertilizers, and pesticides degrade water quality for all users.



### LEGEND

Pump to Delivery 

Return Flow 

Evaporation, Evapotranspiration 

Precipitation 

Infiltration 





## 3. SOIL IMPROVEMENT

Start with a strong foundation, from the soil up! Once you understand the context of your site, you need to understand what soil characteristics are on the site. Ideally, you want a soil that meets the needs of the plants you intend to grow, but it is likely you'll need to plan around the soil you have. *The Nampa area is known for clay soils*—clay soil can produce great landscapes, you just have to know how to work with it.

### SOIL BEST PRACTICES

Soil testing is the best way to get to know the composition of your soil. This can save you time, effort and money by indicating what you need versus what you do not.

- **Professional:** University Extension Services
  - » Provides specific soil characteristics and nutrient content
  - » May be beneficial to test every three to four years
- **Do-It-Yourself: Jar test**
  - » Provide general soil characteristic understanding
  - » Jar test examples in appendix
- **Pros and Cons:** Professional testing is specific and detailed and will provide a break down of the composition and characteristics of your soil, with a recommendation for amendments or materials to add to balance your soil. Do-it-yourself methods only convey general

characteristics and don't provide nutrient understandings which can lead to inputs that will likely not mitigate all issues.

### WORKING WITH CLAY SOILS

Permeability of site soils greatly impacts what we plant and how we irrigate our landscapes. Irrigation water run-off is prevalent in Nampa area landscapes, resulting in wasted water and minimizing its impact on plant health. Permeability of clay soil is relatively low, meaning





water doesn't flow through it easily. To counter this you'll need to **consider the following when planning your landscape soils:**

- Periodic aeration (once a year) in turf lawn areas helps mitigate compaction
- Soil amending can help mitigate the negative aspects of clay soils as few suggestions include introducing:
  - » Introduce sand into the profile
  - » Compost, organics and humus
  - » Gypsum and Clay Breaker
  - » Fertilizer and Organics (Humus)
  - » Fertilize your lawn per observed soil characteristics and plant types
- Select plants that are suited for or can adapt to clay soils

## USE OF MULCH

The use of mulch or top-dressing landscape areas has many benefits including maintaining soil moisture and weed suppression. There are several options to choose from but here are a few things to keep in mind:

- Recommended depths usually range from 3" to 4"
- Organic – bark and compost
- Mineral – crushed stone or gravel
- Other – recycled tire, etc.

## PROS AND CONS OF EACH

- Bark is an organic product and can improve soil, but typically needs to be replenished as it degrades over time.
- Compost can make a fine top dressing but degrades rapidly. For it to be most successful replenishing

yearly is often recommended.

- Rock doesn't need to be replaced often unless it's displaced, saving money. It can cause plants stress due to radiant heat from sun exposure.
- Each type of mulch has good qualities. It's important to pick the type that best meets your needs and style.

## WEED FABRIC OR NOT?

Whether or not to use weed control fabric should be determined based on your landscape goals.

- Weed fabrics are an excellent way to reduce weeds in landscapes, but they are a system that should be understood as there are several different types. Advantages and disadvantages vary for each.
- One trade-off to consider is how water moves through the fabric. Does it allow water to freely flow through or just at "punched" openings? Will it affect the ability of my plants to grow and thrive?
- Placing fabric limits the ability to work with the soil underneath.

## ADDITIONAL RESOURCES

University of Idaho Extension:

- [Mulching Guide](#)



- [Canyon County Extension Testing](#)







## 4. EFFICIENT IRRIGATION

The majority of Nampa's water allocated for irrigation comes through the canal system from Lucky Peak Reservoir. This water is managed primarily by Pioneer Irrigation District and the Nampa Meridian District. ***Our irrigation water is a valuable but limited resource.*** Over-irrigating landscapes and the waste or loss of water through run-off and evaporation puts added strain on our local water availability. The appropriate use of water, *when properly designed, monitored, and maintained*, is one of our best tools to protect this resource.

Xeriscape irrigation design principles do not mean zero-water. Rather, it means focusing on watering precisely how much a plant needs, and where the plant needs it. A properly designed irrigation system can help save you time and money.

### HYDROZONES

Different plant types require different amounts of water. Turf, trees, and shrubs should be watered on different zones. When designing your landscape, consider grouping plants with similar water needs together to make your irrigation system more efficient.

#### 1. Lawn

Lawn irrigation can account for nearly half of a homeowner's water usage. In the Treasure Valley, most lawns only required irrigation once every 3 to 5 days to stay healthy and green. Irrigating every day can result in shallow rooted plants. Alternatively, applying more water less frequently can encourage more deeply rooted and healthier turf. In general, turfgrass requires 1"-1.5" of water per week, and up to 2" during the hottest summer months. Adjusting your irrigation schedules seasonally will help ensure your lawn receives the water it needs when it needs it the most. For added efficiency, consider using rotary nozzles to water your lawn. Rotary stream nozzles, as opposed to traditional spray nozzles, apply water more slowly in larger





droplets making the spray less vulnerable to being lost to wind; this application also helps prevent runoff by giving soil time to absorb the water. Avoid using lawn in areas less than 5' wide; these areas are difficult to water efficiently and can lead to excess runoff and waste. Extra attention should be given to the actual water needs for lawn – unlike individual plants which can show stress when over-watered, turfgrass can and is often overwatered without exhibiting obvious signs of stress.

## **2. Trees**

Trees need slow, deep, and infrequent irrigation to provide the greatest benefit to deep and extensive root systems. Ideally, trees should be irrigated separately from lawns and shrub plantings. Utilizing drip emitters, low-flow surface bubblers, or a root zone watering system can allow the water to penetrate the soil profile and be delivered to the deeper roots. Monitoring the soil moisture levels so trees have moist, but not wet soils will help give trees an optimum growing environment.

## **3. Shrubs and Groundcover**

The use of spray irrigation in shrub planting beds can result in over-spray, runoff, and the application of water outside the plant growing zone. Utilizing point source drip irrigation methods provides adequate water at the base of each plant, under the outside of the plant canopy. Plan ahead for the mature growth of your plants so you can adjust and move emitters over time as the plants grow.

## **SOIL TYPES**

Understanding and amending your soil does more than just providing a nutrient-rich environment for your plants to grow. Different soil types absorb, store, and move water differently: coarse sandy soils absorb water very quickly while silts and clay soils have a very low intake rate. But the fine textured soils retain moisture longer than the sandy, coarse soils. This means water applied quickly or in large amounts to clay soil has a greater tendency to runoff instead of being absorbed into the soil. For example, this means water should be applied more slowly over a longer period in clay or silty soils, with longer periods between waterings. Over time, irrigation zones may need adjustments in application rates depending on your soil conditions.

## **DRIP IRRIGATION**

There are several methods to utilize drip irrigation: individual emitters, multiple-port emitters, drip tubing with in-line emitters, micro-sprays, and surface bubblers. Understanding how each of these methods applies water will help guide you in selecting the right application for the right plant. The proper application and depth of mulch can help reduce evaporation of drip applied water.



## SPRAY IRRIGATION

Overhead, or spray irrigation, is typically used for watering lawns or densely planted groundcovers. Spray irrigation applies water over the plants which is intended to water a soil area thoroughly; the dense root zone of turfgrass is suited for this type of irrigation. Spray irrigation can be applied in three general ways: traditional spray nozzles, spray rotary heads, and spray rotors. For small areas, spray nozzles and rotary heads can provide adjustable and customizable spray radii and shapes, ideal for irregularly shaped landscape areas. Several manufacturers also provide nozzle options that can water narrow, linear spaces like park strips.

Rotors are typically available in much larger radius applications which can be beneficial for much larger spray areas like sports fields and parks. Key considerations for spray applications include: shape and size of the planting area, wind patterns (which can affect water loss when applied overhead), soil types, and proper design to avoid over-spraying onto adjacent paved surfaces.



*See Appendix for example run times.*

## IRRIGATION SYSTEM MONITORING AND AUDITING

The best planning and design strategy is only as good as the system functions. Regularly monitoring your system to make sure it is functioning as intended and making regular adjustments will improve your overall efficiency. Tools are available at your local hardware store to measure the precipitation rate, or application rate, of spray zones in turf. In addition, for larger systems, independent irrigation auditors can measure and evaluate the application of water over time to make sure you are getting the most out of your system.

## SMART CONTROLLERS

An irrigation controller can help you save water when programmed properly. 'Smart' controllers can automatically adjust water application and timing based on local weather data and your individual site conditions including sun exposure, slopes, and plant types. Many manufacturers also provide sensors that can measure your specific conditions like soil moisture, freezing conditions, or measured rainfall.

## DROUGHT CONSIDERATIONS

When under extreme drought conditions, additional water may be saved by reducing or restricting the watering of certain planting areas. Because plant types react differently to drought, consider this: restrict turf watering first, then shrubs and perennials, and trees as a last resort.



## OTHER CONSIDERATIONS

- Watering your landscape early in the morning can help reduce evaporation rate and water loss
- Because Nampa utilizes secondary water for irrigation, small particulates and sediment may enter the system. Using filters can help minimize the impact these may cause in clogging small distribution lines
- When converting existing spray zones for shrub planting areas, manufacturers carry conversion equipment that make it easy and cost effective to simply convert the irrigation type
- Monitor and adjust your spray irrigation to avoid over-spray onto paved surfaces to minimize runoff
- Winterizing your irrigation system at the end of the water season by removing pressurized water from your pipes can help avoid breaks and extend the longevity of your irrigation system
- Spring start-ups should be completed including repairs and adjustments of all parts and spray heads for optimal watering coverage through-out the growing season
- Try watering your lawn on odd or even days to match your house number.
- Establishing landscape plants typically utilizes more water than is needed once established. Be sure to dial back watering after a few months to conserve.

## ADDITIONAL RESOURCES

1. Nampa Irrigation: [Irrigation | Nampa, ID - Official Website](#)
2. Nampa and Meridian Irrigation District: [NMID Home Page](#)
3. USDA Lawn Irrigation Guide: [Lawn Watering Guide](#)
4. University of Idaho Extension: [Irrigation](#)
5. Idaho Rural Water Association: [DIY Water Audit](#)
6. [Pioneer Irrigation District](#)
7. [Boise - Kuna Irrigation District](#)
8. [Boise Project Board of Control](#)

1.



5.



2.



6.



3.



7.



4.



8.





## 5. PLANT SELECTION AND USE

**Selecting the right plants for your project doesn't need to be difficult. The following is a starter list of consideration when picking the right plants for your project:**

- On existing sites, start by inventorying existing trees, shrubs, and perennials that can remain.
- Consider seasonal and climatic factors. Nampa, ID is a 6b to 7a per the USDA Hardiness Zones.
- Ask neighbors or local experts what's worked well for accomplishing your plan goals.
- Nampa residents and businesses should pick shrubs and perennials that support the style and performance goals identified earlier.

**Plant selection should consider plant characteristics:**

- Deciduous or evergreen
- Form and texture
- Growth habits
- Water needs adaptability
- Coverage
  - » Commercial minimums are set forth by city code
  - » For residential, consider plant spacing to reflect style and goals
- Screening, softening, and buffers
- Availability of plant material
  - » Nurseries are partners in good water wise strategies, but they also respond to consumer demand for plants that provide ornamental qualities to meet style or performance goals. It is important to work with local plant providers to select or confirm the appropriate plants for each project.



## RECOMMENDED PLANTS

The plant lists referenced in this section provide a starting point to facilitate appropriate aesthetic landscape plant selections with proven lower water demands illustrate characteristics for water conservations. It is not intended to be a comprehensive list of approved plants for use in Nampa and surrounding areas. An approved list can be found in the appendix.

Although no plants can survive permanently in dry soil, many plant species have adapted to the dryer climate conditions seen in the Treasure Valley and may also be suitable for use in commercial and residential landscapes. Users may also benefit by visiting and speaking with local plant suppliers and nurseries who have extensive background with the water needs and adaptability of individual plants and real-time availability.

Thoughtfully designed irrigation systems provide the best support for native and adapted plant materials to thrive in lower water conditions. *(Reference irrigation system best practices in these guidelines for additional information.)*










Additional tree species selections are available in the [Treasure Valley Tree Selection Guide](#) which is the result of years of collaboration between public, private, and non-profit stakeholders who are engaged in growing, planting, planning for and managing the region's forest resources.

Scan for Treasure Valley  
Tree Selection Guide



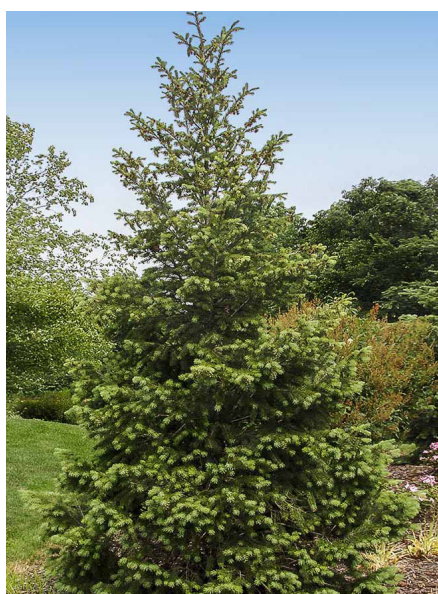


Moderate Usage  | Low-Water Usage 

Common Name <i>Genus Species</i>	Mature Size (HxW)	Water Use
<b>TREES</b>		
<b>Deciduous</b>		
Emerald Sunshine Elm / Accolade Elm, Class II <i>Ulmus davidiana</i>	40' - 50' x 30' - 40'	
Norway Maple, Class II <i>Acer platanoides</i>	40' - 50' x 30' - 40'	
Serviceberry, Class I <i>Amelanchier x grandiflora</i>	15' - 25' x 15' - 25'	
Littleleaf Linden, Class II <i>Tilia cordata</i>	40' - 60' x 30' - 40'	
Common Hackberry, Class II <i>Celtis occidentalis</i>	40' - 60' x 40' - 60'	
Canada Red Chokecherry, Class I <i>Prunus virginiana</i>	20' - 25' x 20'	
<b>Coniferous (Evergreen)</b>		
Limber Pine <i>Pinus flexilis</i>	20' - 30' x 10' - 20'	
Colorado Spruce <i>Picea pungens</i>	45' - 55' x 25' - 35'	
Douglas Fir <i>Pseudotsuga menziesii</i>	50' - 60' x 20' - 30'	



**Serviceberry  
(Autumn Brilliance)**














**Douglas Fir**



**Canada Red Chokecherry**



Common Name <i>Genus Species</i>	Mature Size (HxW)	Water Use
Upright Juniper <i>Juniperus scopulorum</i>	15' - 20' x 6' - 12'	
<b>SHRUBS</b>		
<b>Deciduous</b>		
Kelsey Dogwood <i>Cornus sericea 'Kelseyi'</i>	2' x 2'	
Japanese Barberry <i>Berberis thunbergii</i>	4' x 4'	
Shrubby Cinquefoil <i>Potentilla fruticosa</i>	3' x 3'	
Golden Currant <i>Ribes aureum</i>	6' x 6'	
Blue Mist Spirea <i>Caryopteris x clandonensis</i>	3' x 3'	
'Gro-Low' <i>Rhus aromatica</i>	2' x 6'	
Lavender <i>Lavandula spp.</i>	18" x 18"	
<b>Evergreen</b>		
Dward Mugo Pine <i>Pinus mugo v. pumilo</i>	4' x 6'	
Oregon Grape <i>Mahonia Aquafolium</i>	5' x 5'	
Spreading Juniper <i>Juniperus horizontalis</i>	2' x 6'	

















**Gro-Low Sumac**



**Dward Mugo Pine**



**Shrubby Cinquefoil**

Common Name <i>Genus Species</i>	Mature Size (HxW)	Water Use
English Lavender <i>Lavendula angustifolia</i>	1.5' x 1.5'	
<b>ORNAMENTAL GRASSES</b>		
Blue Fescue <i>Festuca glauca</i>	12" x 12"	
Blue Grama Grass <i>Bouteloua gracilis</i>	18" x 2.5'	
Switchgrass <i>Panicum spp.</i>	4' x 4'	
Dwarf fountain grass <i>Pennisetium spp.</i>	3' x 3'	
Reed Grass <i>Calamagrostis acutiflora</i>	4' x 2'	
<b>PERENNIALS</b>		
Yarrow <i>Achillea millefolium</i>	1' x 1' - 2' x 2'	
Butterfly weed <i>Asclepias tuberosa</i>	2' x 3'	
Coneflower <i>Echinacea spp.</i>	2.5' x 2.5'	
Daylily <i>Hemerocallis spp.</i>	2' x 2'	
Lewis Flax <i>Linum lewisii</i>	18" x 18"	
Walker's Low Catmint <i>Nepeta x faassenii</i>	18" x 18"	
Penstemon <i>Penstemon spp.</i>	Varies by species	
Autumn sage <i>Salvia greggii</i>	18" x 3'	



**Blue Grama Grass**



**Blue Fescue**



**Switchgrass**



## ALTERNATIVE TURF SPECIES TO CONSIDER

Traditional Kentucky blue grass lawns have been identified as high-water consumers. In recent years, suppliers have been developing alternative species that have water saving benefits and are increasing in popularity for decorative lawns. Species for consideration include:

- Drought tolerant tall fescues
- Fine fescues with native mix grasses
- Rye grasses
- Blue gramma
- Buffalograss

## ADDITIONAL RESOURCES ON PLANTS AND PRACTICES

1. City of Nampa Approved Water Wise Plant List (CNAWPL) *in appendix*
2. [Treasure Valley Tree Selection Guide](#)
3. University of Idaho Extension: [Turfgrass Establishment and Management](#)
4. Bureau of Land Management: [Native Garden Guide for Southwestern Idaho](#)
5. Bureau of Land Management: [Landscaping with Native Plants of the Intermountain Region](#)
6. University of Idaho: [Landscaping with Native Plants](#)
7. Idaho Botanical Center: [Garden Explorer, Plant Look Up](#)



## 6. MAINTENANCE CONSIDERATIONS

All landscapes require regular maintenance and upkeep. Intensity of those efforts can vary greatly based upon owner goals, landscape type and cultural expectations. Ornamental landscapes typically take the most effort to maintain corresponding to the level of aesthetics desired. Xeriscape or water wise landscape do not necessarily reduce labor demands but can shift traditional inputs from mowing, and trimming to periodic checks on irrigation, seasonal pruning or other demands. Considerations for maintenance planning should include:

- Cost of each maintenance practice and the financial impact over time.
- Select plants that are known to be pest resistant and thrive in the area.
- Determine the frequency of maintenance events. Identifying weekly, monthly, yearly, or multi-year maintenance should guide plant selection.
- Limit plants that need aesthetic pruning by selecting a plant that has the right form and size for the area over its lifespan.

### QUESTIONS TO ASK:

- Will the planned plants palette need special amendments or fertilizers over time to look good?
- Does the style or type of planned planting match expectations for maintenance labor demands during operation?
- Can we reduce the amount of maintenance inputs by shifting cultural expectations from needing to always have deep green lawns and landscapes to embracing the light greens, sages and yellowing that more native and natural plantings provide?

### Typical maintenance considerations include:

- Cost of care
- Irrigation (watering, adjustments and repairs)
- Pest control (weeds, insects, and animals)
- Replacing mulch
- Pruning
- Mowing
- Fertilization
- Specialties as needed



## 7. APPENDIX

1 – Nampa Water Wise Landscape Guidelines (link to this guide)

2 – Irrigation Run Time Examples

3 – Design Principles and Best Practices

4 – City of Nampa Approved Water Wise Plant List (CNAWPL)

5 – Jar test examples:

[a. Example 1](#)

[b. Example 2](#)

6 – Additional Landscape and Plant Selection Resources:

[c. Idaho Native Plant Society](#)

[d. University of Idaho Extension](#)

[e. Orton Botanical Garden](#)

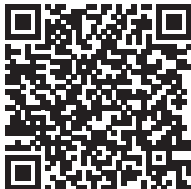
[f. Native Plants for Idaho Roadside Restoration and Revegetation Programs](#)

[g. Shrub Selection for Utah Landscape](#)

1.



a.



b.



c.



d.



e.



f.



g.



## 2. IRRIGATION RUN TIME EXAMPLES

### IRRIGATION AND WATERING SUPPORT

1. University of Idaho Extension: [Watering Home Lawns and Landscaping](#)
2. University of Idaho Extension: [Watering Home Lawns: How Much and How Often](#)
3. University of Idaho Extension: [4 Steps to Save Water and Have a Healthier Lawn](#)
4. University of Idaho Extension: [Master Gardeners Handbook](#)







**Fan Spray**



**Rotary**



**Rotor**

## IRRIGATION RUN TIME EXAMPLES

This is only an example to illustrate how run times affect the amount of water. User should evaluate their own irrigation system nozzle types and adjust accordingly.

### Typical run time for the following spray types to irrigate 1" of water

- fan spray - 36 minutes (30 psi, 1.65 in/hr)
- rotary - 120 minutes (40 psi, 0.5 in/hr)
- rotors - 86 minutes (40 psi, 0.7 in/hr)

### Irrigate 1" of water, 3 watering days (Mon/Weds/Fri or Tues/Thurs/Sat)

- fan spray - 12 minutes per day
- rotary - 40 minutes per day
- rotors - 28 minutes per day

### Cycle soak (half of the day run time, 30-60 minutes between runs)

- fan spray - 6 minutes - 2 runs/per day
- rotary - 20 minutes - 2 runs/per day
- rotors - 14 minutes 2 runs/per day

Local experts suggest 1" a week during the spring, adjusting to a max of 1 1/2" to 2" of water per week during the summer heat (July), then back down to 1" leading to fall. Adjust accordingly.

### 3. DESIGN PRINCIPLES AND BEST PRACTICES

#### TURFGRASS PLANTING IN PARKING ISLANDS AND MEDIANS

Turfgrass should be avoided in interior islands and medians where there is an increased probability of overspray and runoff. Instead, interior parking islands should be planted with shrubs, groundcover, and ornamental grasses to meet the City's required planting density.



#### TURFGRASS PLANTING IN NARROW PARK STRIPS

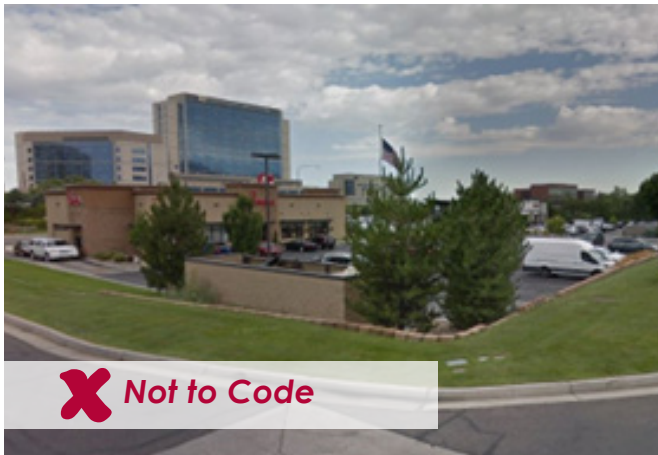
Turfgrass should be avoided in narrow park strips and areas less than 5' width. These areas are difficult to irrigate and maintain efficiently and lead to excessive runoff and overspray. Instead, utilize low shrubs, groundcovers, perennials and ornamental grasses.





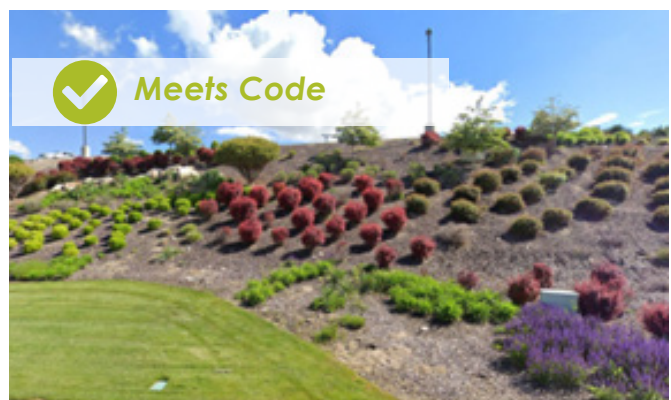
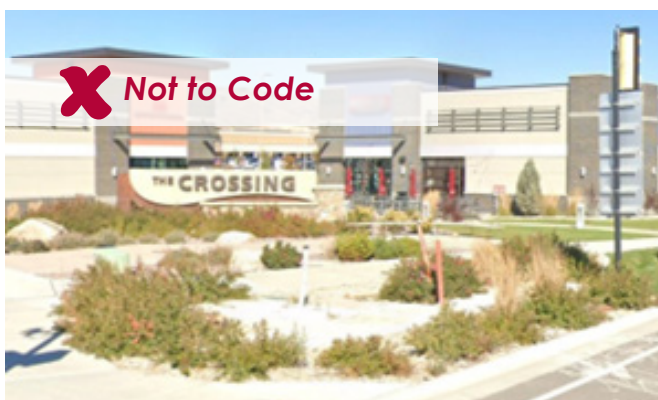
## TURFGRASS PLANTING IN DECORATIVE AREAS

Turfgrass planting should be avoided as a primary landscape treatment in decorative, or non-usable spaces. Where landscape areas will be simply aesthetic in nature, plant trees, shrubs, groundcovers and ornamental grasses instead.



## TURFGRASS IN LANDSCAPE BUFFERS

Where landscape buffers are required by the City, turfgrass is limited to 50% maximum of the buffer area. The remainder of the area is to be planted with shrubs, groundcovers, and ornamental grasses with mulch. These areas should achieve 50% vegetative cover at maturity, avoiding excessive expanses of mulch alone. Planting can be achieved in formal, informal, and organic applications to achieve the desired densities.



## 4. CITY OF NAMPA APPROVED WATER WISE PLANT LIST (CNAWPL)

Other shrubs, ornamental grasses and groundcovers that are available from local area landscape nurseries may be considered if approved by the planning director or city forester.

### SHRUBS

BOTANICAL NAME	COMMON NAME	WATER USE
Acer ginnala	Amur maple	Medium
Amelanchier spp	Serviceberry	High
Arctostaphylos x coloradoensis	Manzanita / Mock Bearberry	Low
Aronia melonocarpa (cultivars)	Glossy black chokeberry	Medium
Atriplex canescens	Four wing saltbush	Low
Berberis spp	Barberry	Medium-Low
Buddleia spp	Butterfly bush	Low
Caragana arborescens	Pea shrub	Medium-Low
Caryopteris spp	Blue-mist spirea	Medium-Low
Ceratoides lanata	Winterfat	Medium-Low
Cercocarpus spp	Mountain mahogany	Low
Chamaebatiaria millefolium	Fernbush	Low
Chamaecyparis pisifera	Gold thread cypress	Medium
Cornus alba	Dogwood	Low
Cornus sericea	Redtwig dogwood	Medium-Low
Cotoneaster spp	Cotoneaster	Medium
Eriogonum heracleoides	Parsnipflower buckwheat	Medium-Low
Eriogonum sphaerocephalum	Rock buckwheat	Medium-Low
Euonymus alata	Burning bush	Medium
Euonymus fortunei	Euonymus	Medium
Euonymus japonica	Boxleaf euonymus	Medium
Euonymus kiautschovicus "Manhattan"	Manhattan euonymus	Medium-Low
Fallugia paradoxa	Apache plume	Medium
Forsythia x intermedia	Forsythia	Medium
Hesperaloe parviflora	Red yucca	Low
Hibiscus syriacus	Rose of Sharon	High
Holodiscus discolor	Ocean spray	Low
Juniperus chinensis	Juniper	Medium-Low
Juniperus horizontalis	Rug juniper	Medium-Low
Juniperus x pfitzeriana	Fitz juniper	Medium-Low
Lavendula spp	Lavender	Low
Ligustrum spp	Privet	Medium
Lonicera xylosteoides	Dwarf honeysuckle	Medium
Mahonia aquifolium	Oregon grape	High
Mahonia repens	Creeping mahonia	High
Paxistima spp	Dwarf mountain lover	Medium-Low
Philadelphus lewisii	Mock orange; syringa	Medium-Low
Philadelphus virginialis	Dwarf mock orange	Medium-Low
Physocarpus spp	Mountain ninebark	High
Picea abies "nidiiformis"	Birdsnest spruce	Medium-Low
Pinus mugo	Mugo pine	Medium-Low
Potentilla fruticosa	Potentilla	Medium-Low
Prunus besseyi	Western sand cherry	Medium-Low
Prunus cistena	Cistena plum	Medium
Prunus tomentosa	Nanking cherry	Medium
Prunus virginiana	Chokecherry	Medium
Purshia tridentate	Antelope bitterbrush	Medium-Low
Pyracantha spp	Pyracantha	Medium-Low
Rhamnus frangula	Buckthorn	Medium-Low



## SHRUBS

Rhus spp	Sumac	Medium-Low
Ribes aureum	Currant	Low
Salvia numerosa	Purple sage	Medium-Low
Sambucus spp	Elderberry	Medium-Low
Shepherdia spp	Buffaloberry	Low
Sorbaria sorbifolia	Ashleaf spirea	Medium-Low
Sorbus scopulina	Mountain ash	Medium-Low
Sphaeralcea ambigua	Desert globemallow	Medium-Low
Sphaeralcea grossulariifolia	Goosefoot globemallow	Medium-Low
Sphaeralcea munroana	Munro's globemallow	Medium-Low
Spiraea x bumalda "Anthony Waterer"	Anthony Waterer spirea	Low
Spiraea japonica	Spirea	Medium-Low
Spiraea nipponica "Snowmound"	Halward's silver spirea	Medium-Low
Spiraea x "Van Houtte"	Van Houtte or bridal wreath spirea	Medium-Low
Symphoricarpos albus	Snowberry	Medium
Symphoricarpos occidentalis	Western snowberry	Low
Symphoricarpos orbiculatus	Red snowberry	Medium
Symphoricarpos oreophilus	Mountain snowberry	Low
Syringa meyeri	Dwarf Korean lilac	Medium
Syringa patula "Miss Kim"	Miss Kim lilac	Medium
Syringa vulgaris	Common lilac	Medium
Taxus spp	Yew	High
Viburnum spp	Viburnum	High
Weigela florida	Weigela	Medium
Yucca spp	Yucca	Low

## GRASSES (Ornamental/Turf/Turf Alternatives)

BOTANICAL NAME	COMMON NAME	WATER USE
Achnatherum hymenoides	Indian ricegrass	High
Achnatherum thurberianum	Thurber's needlegrass	High
Agropyron spp	Wheatgrass	Medium-Low
Andropogon gerardii	Big blue stem	Medium-Low
Bouteloua gracilis 'Blond Ambition'	Blue Grama Grass	Low
Buchloe dactyloides	Buffalograss	Medium
Calamagrostis acutifolia	Reed Grass	Low
Chasmanthium latifolium	Inland Sea Oats	Medium
Deschampsia caespitosa	Tufted hairgrass	Medium-Low
Elymus multisetus (elymoides)	Sandhollow squirreltail	Medium
Festuca spp	Fescue	Medium
Helictotrichon sempervirens	Blue Oats Grass	Medium
Koeleria macrantha	Prairie junegrass	Low
Leymus cinereus	Great basin wildrye	Medium
Molina caerulea	Moor Grass	Low
Muhlenbergia spp.	Muhly Grass	Low
Panicum spp.	Switchgrass	Medium
Pennisetum spp.	Dwarf Fountain Grass	Medium
Pseudoroegneria spicata	Bluebunch wheatgrass	Medium
Schizachyrium scoparium	Little bluestem	Medium-Low
Sorghastrum nutans	Indian grass	Medium-Low
Sporobolus cryptandrus	Sand dropseed	High
Sporobolus wrightii	Giant sacaton	Medium-Low
Stipa comata	Needle and thread grass	High

## GROUND COVERS/PERENNIALS

BOTANICAL NAME	COMMON NAME	WATER USE
Achillea spp	Yarrow	Medium-Low
Agastache spp.	Hyssop	Low
Ajuga reptans	Carpet bugle	Medium
Allium spp	Ornamental allium	Low
Anaphalis margaritacea	Pearly everlasting	Medium
Antennaria parviflora	Pussytoes	Medium
Antennaria rosea	Rosy pussytoes	High
Aquilegia spp	Columbine	Medium
Arabis spp	Rockcress	Low
Arctostaphylos uva-ursi	Kinnikinnick	Medium
Arenaria spp.	Mossy sandwort / Desert moss	Low
Armeria maritime	Common thrift	Medium
Artemisia frigida	Fringed wormwood	Medium
Artemisia ludoviciana	Prairie sage	Low
Asclepia speciosa	Showy milkweed	Medium
Asclepia tuberosa	Butterfly weed	Low
Aster spp	Aster	Medium
Bergenia spp	Bergenia	High
Callirhoe involucrata	Winecups	Low
Camassia quamash	Blue camas	Medium
Campanula spp	Bellflower	Low
Cerastium tomentosum	Snow in summer	Low
Chrysanthemum spp	Chrysanthemum	Medium
Clarkia amoena	Farewell to spring	Medium
Coreopsis spp	Coreopsis	Medium
Dalea purpureum	Purple prairie clover	Low
Delosperma nubigenum	Hardy ice plant	Low
Delphinium spp	Delphinium	Medium
Dianthus spp	Pinks	Low
Echinacea spp.	Coneflower	Medium-Low
Epilobium/Chamerion angustifolium	Fireweed	Medium
Epilobium canum	Hummingbird trumpet (firechalis)	Medium
Erigeron spp.	Cutleaf daisy	Medium
Eriophyllum lanatum	Oregon sunshine	Low
Eschscholzia californica	California poppy	Medium
Fragaria chiloensis	Wild strawberry	Medium
Galium odoratum	Sweet woodruff	Low
Gaillardia aristata	Blanket flower	Low
Gaillardia grandiflora	Blanket flower	Medium-Low
Gaura lindheimerei	Appleblossom grass	Low
Geranium spp	Hardy geraniums	Medium
Geum spp	Prairie smoke	Medium
Helianthus nuttallii	Marsh sunflower	Low
Hemerocallis spp	Daylily	Medium
Heuchera spp	Coral bells	Medium
Hymenoxys grandiflora	Old man of the mountains	Low
Iliamna rivularis	Mountain hollyhock	Medium
Ipomopsis angustifolium	Scarlet gillia	Medium
Iberis	Candy Tuft	Low
Iris spp	Iris (excluding red iris)	High
Kniphofia uvaria	Red hot poker	Medium
Liatris spp	Graygeather	Medium-Low



## GROUND COVER

Lilium spp	Lilies	Low
Linum lewisii	Lewis Flax	Low
Lomatium nudicaule	Barestem desert parsley	Medium
Lupinus spp	Lupine	Medium
Marrubium rotundifolium	Silver-Edged horehound	Medium-Low
Mertensia ciliata	Tall fringed bluebells	Medium
Mimulus cardinalis	Scarlet monkeyflower	Medium
Mimulus guttatus	Yellow monkeyflower	Medium
Mirabilis jalapa	Four o'clock	Medium
Mirabilis multiflora	Wild four o'clock	Medium
Monarda spp	Beebalm	Medium
Monardella odoratissima	Horsemint	Medium
Nepeta spp.	Walkers low catmint	Medium
Origanum libanoticum	Cascading ornamental oregano	Low
Papaver spp	Poppy	Medium
Penstemon spp	Penstemon	Low
Phlox subulata	Moss pink	Medium
Polemonium caeruleum	Jacob's ladder	Medium
Ratibida columnifera	Mexican hat	Medium
Rudbeckia hirta	Black-eyed Susan	Medium
Salvia nemorosa	Autumn Sage	Medium-Low
Scutellaria spp	Skullcap	Medium
Sedum spp	Stonecrop	Medium-Low
Sempervivum tectorum	Hen and chicks	Medium-Low
Solidago canadensis	Goldenrod	Medium-Low
Stanleya pinnata	Prince's plume	Medium
Teucrium spp.	Germander	Medium-Low
Verbena bipinnatifida	Plains verbena	Medium-Low
Veronica spp.	Speedwell	Medium-Low
Vinca major	Periwinkle	Medium
Vinca minor	Myrtle, dwarf periwinkle	Medium
Wyethia amplexicaulis	Mule's ear	Medium

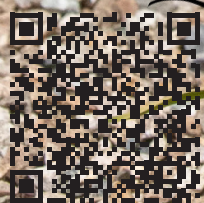
## VINES

BOTANICAL NAME	COMMON NAME	WATER USE
Campsis radicans	Trumpet vine	High
Clematis columbiana	Blue virginsbower	Medium
Clematis hirsutissima	Hairy clematis	Medium
Clematis ligusticifolia	White (western) clematis	High
Lonicera spp and hybrids	Honeysuckle	Medium-Low
Parthenocissus tricuspidata spp	Boston Ivy	High



# NAMPA

I D A H O



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