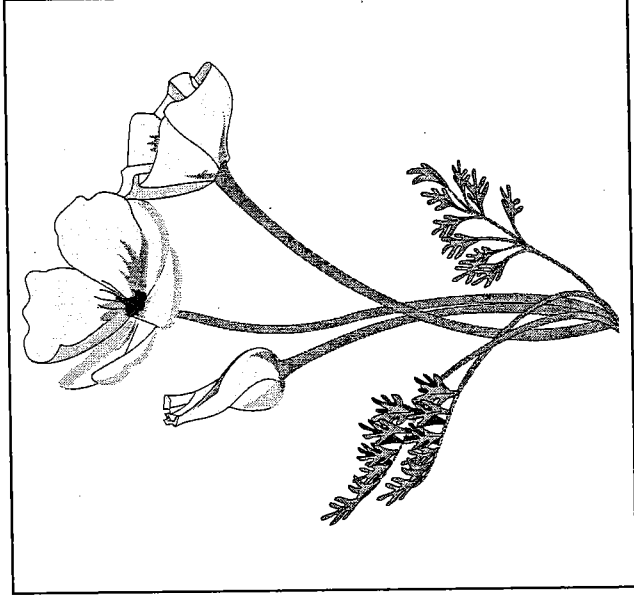


# Landscape Guidelines



City of Omak  
January 1996

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# Introduction and Purpose

The City of Omak adopted a new zoning ordinance in July of 1995. This ordinance identifies permitted uses for several land use districts; it also asks persons proposing certain types of development to include landscaping as part of their plans. These guidelines are for you if your proposed business falls into this category. The following pages summarize the landscaping requirements and offer ideas that can be used to comply with these requirements -- in a way that keeps costs to a minimum.

Like homeowners, many small businesses around Omak voluntarily landscape around parking areas and street frontages. Even by placing a small planter of marigolds near the front door, some business owners and developers feel that landscaping adds character and aesthetic appeal to sidewalks, parking areas and other public places.

Several regional and nationwide trends -- trends that can be seen right here in Omak -- suggest a greater need to make sure our built environment is pleasing, attractive, and pedestrian friendly. First among these trends is the interest that national and multinational corporations are showing in growing rural communities like Omak. The commercial buildings constructed by these companies tend to be similar, if not identical, from one city to the next. The requirement to provide landscaping offers an opportunity to make sure developments such as these recognize and add to the local culture and natural setting we value in the Okanogan Valley.

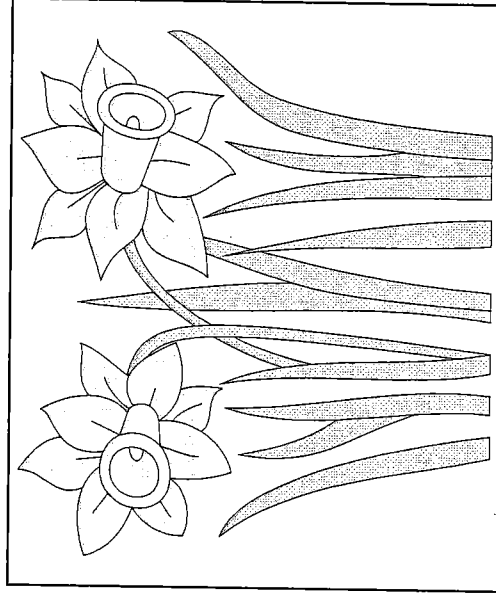
Increasingly, commercial businesses are becoming larger, one-stop shopping enterprises. The volume and choice of merchandise desired by today's consumer, combined with the need to cut overhead costs have caused the average grocery store to increase from 15,000 square feet in 1950 to 50,000 square feet in 1990. Consequently, today's larger commercial buildings require more parking area. A requirement to landscape around shopping centers will help "break up" large windowless walls and expanses of asphalt, giving the whole area a more human scale.

Other trends suggest a need to require landscaping. To encourage shorter vehicle trips, provide greater variety in developed areas, and give property owners more choices, contemporary land use patterns and development regulations are clearly favoring or encouraging a greater variety of land uses within a given area. This tendency toward "mixed use" development is allowing land uses that used to be physically separated to be located next to each other. Mixed use zoning increases the need to make sure that adjoining land uses remain compatible, even if these uses are different. Landscaping is an important tool that can be used to reduce glare, noise, odor, and dust when, for example, a small warehouse is located next to a residential area. Other positive benefits of landscaping include its ability to: reduce soil erosion, improve air and water quality, and enhance wildlife habitat.

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Finally, these guidelines serve educational purposes. The guidelines recognize that landscaping can be installed and maintained in many ways. There are costs associated with each of these ways. Particularly in the Intermountain West, irrigation costs are often cited as a negative side affect of landscaping requirements. The guidelines recommend strategies to both businesses and homeowners that conserve water and reduce maintenance costs, focusing on "xeriscape" principles that have been successfully used in Colorado, Texas, Arizona, and other arid and semi-arid regions.

The landscaping now required by the City of Omak does not represent extravagance. It is, however, the minimum, or the least that can be done or expected to help maintain the City as a desirable place to live, work, and invest in.



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# Applicability

Section 18.16.040 of the Omak Zoning Ordinance **only** applies to new development or redevelopment in the circumstances or land use districts listed below. Conversely, the following page identifies situations in which landscaping is *not* required. The official City of Omak zoning map shows the location of all land use districts and is available for review at the Omak City Hall, 2 North Ash Street.

- TPlanned Shopping District (PS)
- THighway Business District (HB)
- TLight Industrial (LI) and Heavy Industrial (HI) Districts
- TResidential Multi-Unit District (RM)
- TAll recreational vehicle parks
- TAll manufactured home parks
- TConditional uses/Non-residential uses in residential districts (RS, RD, and RM)

- Central Business District
- Single unit dwellings
- Duplexes
- Accessory uses
- Remodels representing less than 50% of the assessed value of the structure

Need more specific information? The table on the next page summarizes the landscaping requirements in greater detail.

# Minimum Landscape Requirements, By Land Use District

Land Use District	Min. Size of Landscaped Area	Buffer Type	Comments
Planned Shopping (PS)	10% of gross lot area. This area may also be used for groundwater retention.	4' high along lot lines that are adjacent to or across the street or alley from any "R" District.	Planting areas must be separated from parking areas with a curb or other device.
Highway Business (HB)	10% of gross lot area. This area may also be used for groundwater retention.	4' high along lot lines that are adjacent to or across the street or alley from any "R" District.	Planting areas must be separated from parking areas with a curb or other device.
Light Industrial (LI) and Heavy Industrial (HI)	No Minimum	None required unless the site is next to a residential district or a designated collector or arterial. If required, buffers must be sufficient to protect residential areas from light, glare, and other impacts. <b>No minimum height given.</b>	Arterials and collectors are identified in the 1993 Greater Omak Area Comprehensive Plan.
Residential Multi-Unit (RM)	No minimum	No buffer requirements.	Landscaping should be similar in character to nearby residences.
RV Parks	No minimum, unless located in PS or HB District.	Must meet requirements of district they are located in.	
Manufactured Home Parks	No minimum, unless located in HB District.	Must meet requirements of district they are located in.	
Conditional/Nonresidential Uses in "R" Districts	No minimum	Sufficient enough to screen from adjacent residences. No minimum height given.	Landscaping should be similar in character to nearby residences.

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# Use of Guidelines

Projects that are required to submit a landscape plan are encouraged to use these guidelines to their benefit. Questions regarding landscaping are encouraged during all pre-application meetings between applicants and the City of Omak. The guidelines combine illustrations with text to make clear the intent and purpose of landscaping requirements found in the Omak Zoning Ordinance. Many of the recommended guidelines will help keep landscaping installation and maintenance costs to a minimum while meeting the requirements of the ordinance.

This guide is not designed for use by developers of commercial and industrial properties only. Though exempt from the requirements of the ordinance, Omak homeowners are encouraged to take advantage of the principles described within these pages, especially as they pertain to water conservation.

The symbols on the following page are used by these guidelines to distinguish recommendations from the actual landscaping requirements of the zoning ordinance. Cross references to the ordinance are also provided.

## Zoning Ordinance Requirements =





Cost Saving Recommendations =

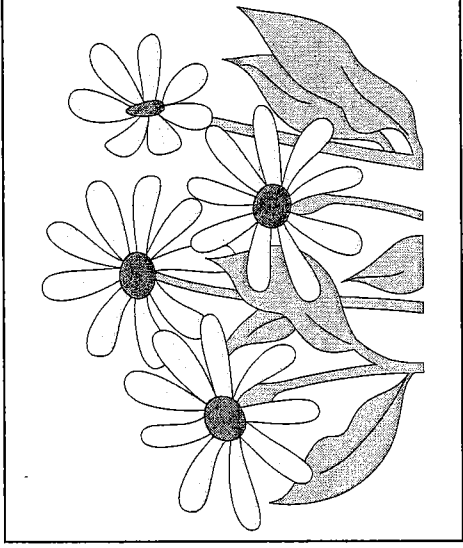


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# Submitting a Landscape Plan

Several things need to be shown on landscape plans. These plans must be submitted to the City before a building permit can be issued for your development. [18.16.040(E)] Information that needs to be on the landscape plan includes:

- ☞ The location of any existing plant material that you plan to retain on the property.
- ☞ Description of buffers and other landscaped areas required for you project.
- ☞ Total size of the lot and portion of the lot to be used for landscaping
- ☞ Written and/or graphic description of proposed landscaping.
- ☞ A short written description of your maintenance plans, including irrigation.
- ☞ Only projects in the HB and PS zones require a percentage of the lot to be landscaped. If your project is not within one of these districts, there's no need to indicate total lot size and total size of landscaped area.
- ☞ You do not have to hire a professional landscape designer or architect to design the landscape. By using these guidelines, anyone should be able to submit a proposal that meets the minimum standards of the ordinance. Take advantage of opportunities to receive free advice from other gardeners, nursery workers, WSU Cooperative Extension, and others. A listing of local landscape resources is found at the conclusion of the guidelines.
- ☞ Think about landscaping as you decide where to place the building(s) on the property. This may save you time and money in the long run.
- ☞ It is a good idea to show the location of water faucets or underground irrigation lines on the landscape plan. The type of irrigation required is up to you, but will depend on the type of plants selected, soil characteristics, etc.



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# Basic Design Suggestions

Basic design principles are presented below for situations that could come up when meeting Omak's minimum landscape requirements. Specific recommended plants are found in Appendix A. First and foremost are suggestions for buffers. As noted previously, buffers are required in the following districts: Planned Shopping, Highway Business, Light Industrial, and Heavy Industrial. It is only in the PS and HB districts that an actual height (4') is specified, though buffers in the LI and HI districts must be high enough to provide the intended protection for nearby areas. The ordinance does not mention minimum buffer widths. In all cases . . . . .

[See 18.16.040(D)(1)(b) and (D)(2)(b) and (D)(3)(a) and (b)]

Some typical situations in which the zoning ordinance calls for buffers are illustrated by the following drawings.

- ✎ The height of buffers you propose in industrial districts should be related to the height of your proposed industrial development. If you can reduce the height of your building, you will not only save money in construction and materials, you will also reduce the size and expense of the buffer necessary to screen it.
- ✎ For industrial projects, consider including a fence as part of you buffer. The fence should be made out of nonreflective materials. Take a look at other fences in the immediate area and design your own fence that fits in the neighborhood. Incorporating a good fence may allow you to reduce the size and quantity of plants -- and it will be cheaper to maintain. Keep in mind that extra effort put into the buffer now may avoid complaints about bright lights, noises, and dust from neighbors in the future. Fences cannot interfere with the sight distances required by drivers. See City of Omak for fence and sight distance standards.
- ✎ The ordinance does not specify if the buffer should serve its purpose the day it's planted or after several growing seasons. The best advice is to take the middle road. Specify plants that will effectively screen the property after 2-3 years of growth.

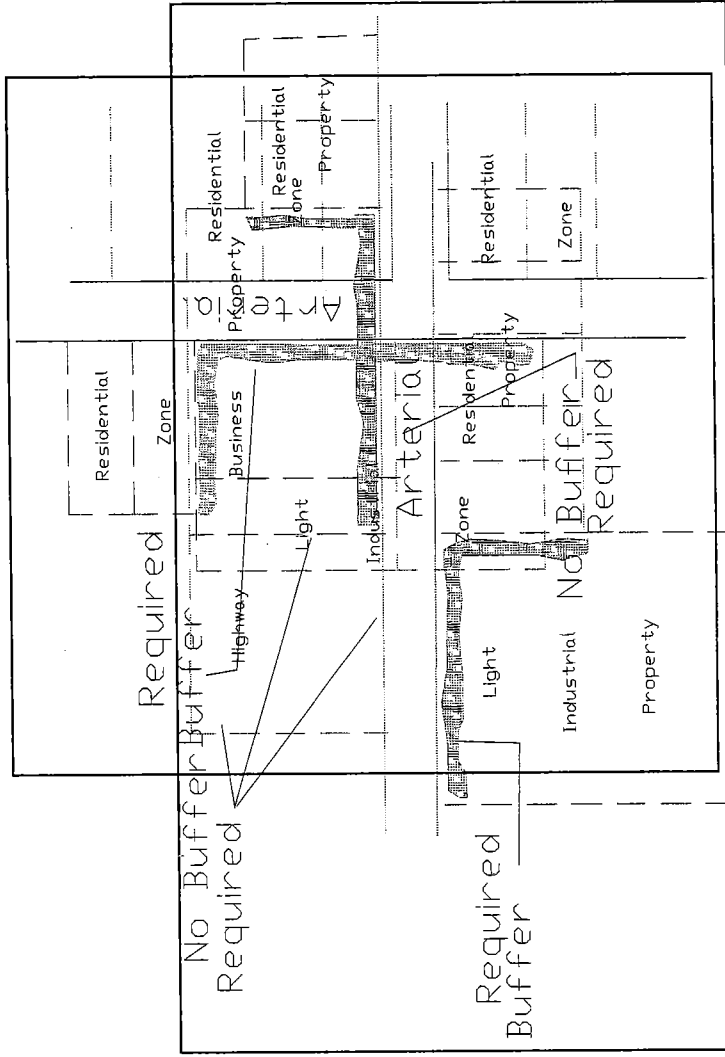
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## Examples of Required Buffers

These two drawings show situations in which buffers are required by the zoning ordinance. In the first drawing, the buffer is required along the front and side property lines due to adjacent residential areas. In the case of the front property line, the buffer is also required because the property is located on an arterial.

The drawing above shows required buffers in commercial and industrial properties. A buffer is required along the front property line of the highway business area because a residential district is across the street. As shown, no buffer is required where two commercial properties are adjacent or where a commercial property is across the street from an industrial property. A buffer is required for the industrial property since it is located along an arterial.

[18.16.040(D)(2)(b)]



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## Other Buffers

Other situations may call for buffers, particularly when a nonresidential use is next to a home [18.16.040(D)(2)(b)]. Common sense prevails in these situations. It is usually a safe bet to take note of hedges and fences used in the neighborhood and design something that is similar. Remember, buffers do not have to be wide to be effective. Also, don't forget to visit Appendix A of this publication for a list of recommended plants that will help keep your water bill down.

## The 10% Factor

☞ The zoning ordinance includes a requirement that developments in the Planned Shopping (PS) and Highway Business (HB) Districts must landscape at least 10% of the gross area of the lot [18.16.040(D)(a)].

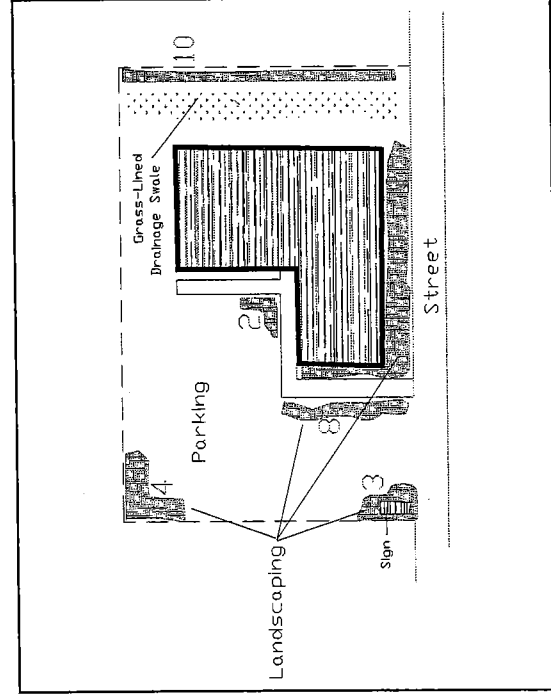
☞ There are variety of ways that this requirement can be met. First, determine the total area that must be landscaped. Four thousand square feet would have to be landscaped on a 40,000 square foot lot. Next, calculate the square footage of the area that will be used for buffers, if any are required. Also determine the area needed for the collection and percolation of stormwater runoff. If this area can be landscaped, it will count towards the 10% requirement.

Don't forget to protect any significant vegetation that can also help you meet part of the requirement. By now, you may only have 1,000 square feet that you have left to landscape. Look for the opportunities listed below to increase square footage of landscaping. A hypothetical site plan on page 17 graphically illustrates these ideas. Numbers on the plan correspond to the numbers below.

1. At vehicle entrances and exits (make sure you're using either deciduous trees or groundcovers only. Evergreen trees and shrubs block views, making driving hazardous).
2. At the entrance to the building. Consider planters, but be aware that they often require more water, per square foot, than ground level planting beds.
3. Near signs (to prevent them from being hit by wayward cars).
4. Throughout and around the perimeter of parking areas. Your customers must walk from their cars to the store entrance. Take advantage of this opportunity to make a good first impression by making the experience as enjoyable, convenient, and stress-free as possible. Landscaping will do this for you.

5. Planting islands or strips in which you would like to place trees should be at least 5' wide in all directions. Deciduous shade trees work best. Again, recommended species, and other water saving ideas are included in this guidebook.
6. If possible, think about placing the building close to the front property line, thereby reserving the side or back of the lot for parking. This strategy can help make the street more pedestrian-oriented, thereby encouraging window shopping (assuming windows are present). It is also in keeping with the character of downtown Omak.
7. Near outdoor seating/eating areas.
8. Along streets and sidewalks to make them more inviting places.
9. Along large blank walls to reduce glare and the scale of the building.
10. Even if they are not required, think about incorporating buffers into your design. Maybe you and your customers would rather not look at that machine shop next door. Go ahead and screen it. Berms are generally discouraged because they allow water to evaporate more quickly, thereby requiring additional irrigation.
11. Refer to page 21 for specific ideas on landscaping to save water and maintenance costs.

### Hypothetical Site Plan



Scratching your head trying to find enough room for the building, parking,

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stormwater, and landscaping? Here are some additional suggestions. These ideas may or may not be appropriate, depending on the site and your proposed development.

- 👉 Approach the City of Omak to see if you can fulfill a portion of your landscaping responsibility within a public street right-of-way.
- 👉 Request a minor reduction in parking stalls so that you can fully meet landscape standards.
- 👉 Incorporate a fence into a buffer, possibly reducing the amount of land needed for plant materials. Don't expect to be able to completely substitute landscaping with a fence.



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# Case by Case Adjustments to the Landscape Requirements

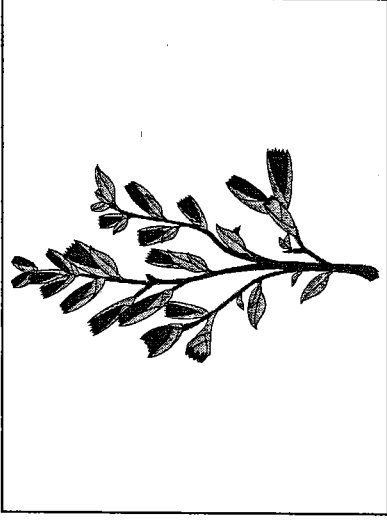
The zoning ordinance recognizes that cases may come up in which absolute compliance with the landscape requirements may not make sense. The City will consider modifications to the requirements under the conditions described below.

☞ Existing structures or improvements are located in areas that would otherwise need to be landscaped; for example, along lot lines. A request for this reduction should be made to the Administrator.

☞ The requirement that 10% of lots in HB and PS districts be landscaped may be reduced if your plans include the protection of existing (at least 3 years old) summer vegetation [18.16.040(D)(a) and [18.16.040(F)(1)]]. To receive this reduction, the vegetation must be significant enough to help meet the purpose and intent of the landscape requirements.

☞ How do you determine if existing vegetation achieves the purpose of the ordinance? Existing vegetation that is being saved must be clearly marked and protected on-site. Noxious weeds and other herbaceous (non-woody) plants will probably not be accepted as a replacement for landscaping. If existing vegetation successfully screens undesirable views and is in healthy condition, a reduction in the minimum area to be landscaped may be warranted. It is anticipated that this vegetation will be trees and/or shrubs that were planted by you or a former property owner. A request for this reduction should be made as early in the development process as possible.

☞ Sometimes areas that might be appropriate for landscaping will also be needed for stormwater collection and percolation. The ordinance allows for this situation by suggesting that the responsible collection, treatment, and conveyance of stormwater runoff takes priority over landscaping. The ordinance includes a provision that the landscaped areas may include and may even be reduced to make room for grassed swales, as an example. [18.16.040(F)(2)]



☞ Be sure to determine the stormwater runoff needs of your project early. This can and should be done with assistance from the City of Omak Public Works Department. Answering stormwater questions up front will prevent you from putting time and money into landscape design, only to find out that the area you selected for landscaping is also the best area to retain or convey stormwater.

## Reducing the Cost of Landscaping

If you're designing or installing your landscape and are feeling a little uneasy about its cost, ask yourself the following questions:

- (1) How much water is this landscaping going to require?
- (2) How much time (i.e. money) am I going to spend keeping it healthy and looking good?

Don't underestimate your ability to reduce water and maintenance costs. There are several ideas that have proven effective, even if they require a little extra planning and effort in the beginning. The Omak Zoning Ordinance does not require you to save water, but by using the strategies described in this chapter, cost savings can be realized.

### What is "Xeriscaping"

Faced with forecasts of water shortages in the early 1980s, a group of Colorado citizens, college professors, and landscapers put their heads together to think of ways to save water. They came up with several good ideas to conserve water through creative landscaping. They even came up with a name for these ideas: Xeriscaping (pronounced "*zera'-scape*"). Xeriscaping comes from the Greek word "xeros", which means "dry". The

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word, and the ideas it represents, have really caught on. There are now xeriscape education programs or organizations in over 40 states. What's all the excitement? Quite simply -- the ideas work.

It is estimated that 40-60% of residential water is used for landscaping; areas with a large amount of lawn use much of this water. If everyone, commercial businesses and homeowners alike, took advantage of xeriscape principles, a tremendous amount of water would be saved. By thinking about ways to reduce the demand for water - as is advocated by xeriscape principles - we may find that we can delay or even eliminate the need to dig new wells, construct new storage tanks, and do other expensive things to increase water supply.

Xeriscaping involves the use of seven major ideas. They are all quite simple and are anything but new. They are practical, common sense ideas that we forgot under a false impression that the supply of fresh water was limitless and cheap. Each of the seven xeriscape principles are summarized on pages 22 through 36. The more that you can take advantage of these ideas, the more money that can be saved in reduced water and maintenance costs. An added bonus is that a landscape using these principles will be ideally suited to the climate and geography of Okanogan County.

## Planning and Design

When designing a landscape, most people dive right in by creating a list of plants they are familiar with or have seen other people use. Avoid this trap by taking some time to think about the different areas of the property and what *type* of planting might be best for each. Maybe some of your objectives can be accomplished by non living objects such as fences and retaining walls? What is on the site currently and how can it be incorporated into the design?

The best way to begin is with a base map. It encourages you to think about the characteristics that are unique to your property. Maybe you've already been working with a contractor or architect that has created a map for you. It should show the existing vegetation, parking areas (or at least the total square footage needed for parking), stormwater retention areas, buildings that you plan to keep, and the location of proposed buildings. At this point the map doesn't have to be a work of art, but is should be accurately scaled. Things to keep in mind as you think about the existing site include:



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👉 What areas of the property receive the most sun? The west and south sides of properties are usually warmer and drier. Can this be the area where stormwater will be retained? Being aware of the relationship of your site to the sun will help you determine which areas may need special irrigation practices, soil improvements, and drought tolerant plants.

👉 What do you want to screen? Where should buffers be located?

👉 What is the natural or designed slope of the property?; where will water drain to?

👉 What is the quality of existing vegetation? Established plants will not require water like young plants will, assuming they are drought tolerant.

👉 Would it make sense to create shade in certain areas? Shade keeps the landscape cooler and reduces water loss through evaporation. Plus, shady areas are more pleasant than an asphalt parking lot on a hot August afternoon. It often makes sense to shade hard surface areas that retain heat, such as stucco and brick walls, and other impervious surfaces. These surfaces, when hot, dry out landscaped areas, thereby requiring you or your employees to spend more time watering them.

**You should strive to prevent direct sunlight from striking hard surfaces and the soil.**

Taking the advice above may even help reduce air conditioning costs for the business. Which side of a building should a parking lot be on -- the hot side (South or West facing) or the cool side (North or East)? Although there are many variables to consider, your customers would appreciate the cool side. Shade becomes a greater need if people (and landscaping) will be on the sunny side.

Now that you've got a handle on the existing and proposed site conditions and you generally know where plantings are going to be, the next step in the design process is to identify water-use zones:

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## Plants in the . . . .

**Y high** water use zones require regular watering

**Y medium** water use zones require occasional watering

**Y low** water use zones can often need little more than natural rainfall

As you would expect, high use zones should be small if you're trying to save water; they should also be concentrated (not spread out all over the property). These are the areas where you are going to splurge. They are usually highly visible and highly maintained. On residential sites, the front yard is typically where the high use zone is concentrated. Medium use zones should be watered when the plants show signs of drought -- such as when they begin to wilt. To save the most water (and money) try to make the low use zone cover the largest amount of landscaped area. Also, avoid small, isolated pockets of high use zone areas. Although some plants in the low use zone will literally shut down and stop growing during droughts, they will not die. Learn to accept this "less than perfect" condition. It won't last long.

Keep in mind that freshly planted plants, even in the low use zone, require regular watering until they become established -- usually a period of several months or more.

**Resist the temptation to start making a list of specific plants for each zone.** Also, be sure to check out the previous section on "Basic Design Suggestions".  
**Limited Lawn Areas**

In both commercial and residential landscapes, lawn typically covers the largest area. When not managed carefully, it also uses the most water. This is why lawns are often targeted by water conservation programs

In times of drought, lawns go dormant. If you're dead set on having large lawn areas and want to save water, it helps to know that drought-stressed grass will usually revive when water returns.

A second option would be to limit the square footage of lawn to areas in which it serves a specific function (such as to absorb and filter stormwater), to areas near entryways, and other locations that people frequent.

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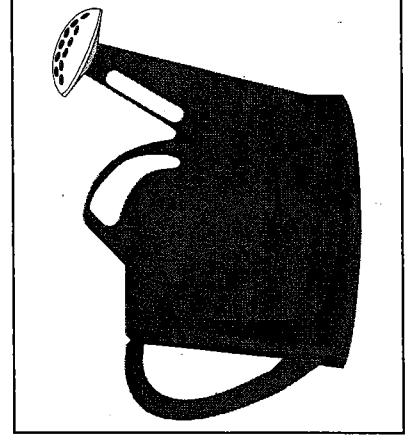
**The quickest, least painful way to reduce the amount of water required by a landscape is to avoid the use of lawn.**

Why does turf grass require so much more water than other plants? The plants roots, our irrigations systems, and the methods used to maintain turf are all guilty parties.

Areas that will be planted with lawn need to be properly prepared and maintained to promote vigorous root growth. Well established roots are more able to withstand longer periods without water. Healthy root systems can be promoted by amending the soil, using appropriate fertilizers, and keeping thatch to a minimum.

Most turf irrigation systems apply water faster than it can be absorbed; it is also often not distributed evenly. The result? Excess water drains to parking lots, sidewalks, and gutters. If lawn is laid out in narrow strips less than 8-10 feet wide, additional water is wasted due to overspray and wind.

Some grass species require less water than others. Commercial grass seed is typically a potpourri of several species. Ideally, the water demand for lawns would be identical to the precipitation rate of the County, applied at a rate that is slow enough to be absorbed by your specific soil. In practice, however, this is rarely the case, causing water to go down the drain.



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## Efficient Irrigation

The Omak Zoning Ordinance requires that irrigation must be provided with adequate water pressure and spacing. [18.16.040(G)(1)]

Irrigation may be a hose and sprinkler or a complex automatic system that uses sensors to monitor soil moisture and applies water only when necessary. Choosing the appropriate sprinkler for a given area is an important way to save water. Keep these suggestions in mind:

It is usually desirable to place part-circle sprinklers along the outside edge of planting areas as shown by the illustration below. In this, wasteful overspray can be avoided.

Particularly in lawn areas, proper sprinkler spacing is critical to achieve uniform application. Sprinklers spaced too close increases costs and uses more water than necessary. Too much distance between sprinkler heads will apply too much water in some areas, and not enough in others.

Rotary sprinkler heads usually have lower (more desirable) application rates than spray heads.

Consider a properly programmed automatic controller to reduce labor costs and allow you to keep your mind on other, more important things. Controllers will automatically turn the system off and on, depending on how much water is required for each zone.

For non-turf areas, drip irrigation is almost always preferable to other alternatives.

Drip irrigation deserves special mention due to its increasing acceptability and usefulness. Drip systems apply water directly at the soil surface through "emitters" or porous tubing or pipe. Drip irrigation uses 30-50% less water than conventional sprinkler systems and often costs less to install.

Drip irrigation performs well in areas of closely spaced plantings of annuals and perennials, although their inconspicuous nature may cause you to forget that they are running. They are also commonly found watering larger trees and shrubs. If your drip system is hooked directly to a faucet, it is a good idea to use a timer so that it will shut itself off after a set length of time. Major cost saving factors with drip systems is that they can be easily installed by anyone and they are often not noticed by vandals.

One last point on irrigation. After the plants are established, you should need little if any irrigation in low water use zones, since plants in this zone can usually do fine with natural rainwater only. Even in medium use zones, hand watering or conventional portable hoses and sprinklers may be all that is needed.

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Local suppliers of irrigation advice and equipment are provided in Appendix B.




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## Plant Selection

Selecting appropriate plants does not only mean choosing plants that you find attractive; it also means finding plants that fit the water use zones described previously. Although drought tolerance is obviously important, don't forget other relevant factors. For example, most junipers can take long periods with little or no water, but cannot tolerate constantly wet soils or shady areas. Would junipers be a good choice in a high water use zone? Probably not, since these areas will be watered frequently.

Although native plants are often assumed to be appropriate and drought tolerant, keep in mind that they may not adapt well in an artificially designed environment. Some other factors to consider when selecting plant species include:

 **Mature size and form.** That little shrub may not be so little in a few years. Overplanting can create maintenance headaches that will cost money.

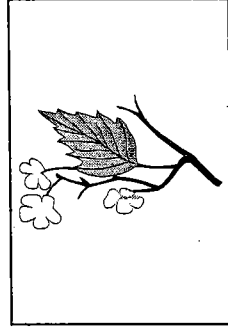
 **Growth rate.** Dwarf varieties and other slow growing plants will require less pruning.

 **Texture.** Is the leaf and branch texture fine, medium, or coarse and does it combine well with the adjacent plants?

 **Color.** Is the flower or foliage color compatible with other plants and your building? Will color add interest throughout the year?

 **Functional Use.** Is the plant suitable for the intended purpose? Plants can hide things, direct people's attention, and provide an aesthetically pleasing environment in which to be in.

Make sure the plants you select do what you want them to



Most importantly, use your water use zones to group plants together by their water requirements. Although some plants can grow in all three water use zones, use them in zones that require the least amount of water whenever possible. For example, if a particular plant can grow in both the high use and medium use zones, try to keep it in the medium use zone. When using the plant list in Appendix A, **keep in mind that**

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**plants don't save water ... people do.** It is our ability to place them near other plants with the same water requirements that will save water and money. Low water use plants placed next to high use plants will get far more water than they need. The key is to avoid this situation. Try to place high water use plants in areas that stay naturally moist, such as shady areas or areas on the north or east side of buildings.

Having trouble finding low water use plants at your favorite nursery? Make your frustrations known to the owner or manager. It is in their interest to know what their customers want. If more people expressed a desire for these types of plants, local nurseries may begin stocking more of them.

### Improving Soils

Many people in the Okanogan Valley will tell you that if water is available, soils in the area are good to excellent for use in gardens and landscaping. In case you're not convinced, you can send soil from your property to the University of Idaho to have it tested -- for a \$30 fee (see list of local resources found in Appendix B). Save your money and show your soil to knowledgeable friends and other local sources of information; they may be able to tell you everything you need to know about its water-holding capacity and fertility.

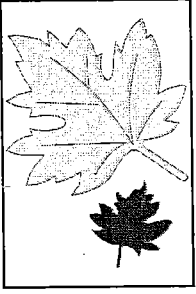
The important thing to keep in mind is to improve the soil throughout the areas to be planted; not just the individual planting holes. This is especially critical on construction sites, since the soil left for landscaping often has as much construction debris as organic matter. Pay particular attention to soils that are in your low use zones -- because these areas will largely rely on rainwater, it is important that the soil is able to retain moisture for long periods.

Water-absorbing polymers, or hydrogels, are becoming increasingly popular additives. Available locally under several trade names, these "crystals" expand by absorbing several hundred times their weight in moisture. This water is then gradually released to plant roots. Polymers can also be used in hanging planters to increase the time between waterings and last from six months to several years, depending on the product being used. Polymers are available at many of the businesses listed in Appendix B.

### Use Mulches

"Mulch" refers to a thin layer of living or nonliving material placed on top of soil and around plants. It has been demonstrated to be an effective way to "insulate" soil and plants from the drying effect of hot sun and winter cold. Mulching conserves moisture by preventing water loss through evaporation, thereby reducing the amount of irrigation needed during periods of low rainfall. Another advantage of mulch is that it will help keep weeds down by reducing the amount of light reaching the soil surface.

Wood chips or bark are the most common mulching material. In general, smaller, more finely textured material conserves more water than large, coarse pieces of (for example) pine bark. In residential areas straw, leaves, and grass clippings are also used as mulch.



Inorganic material, like volcanic rock, is often used because of its durability. However, hard materials like these retain heat all day long, only to release it during the evening hours, increasing water loss.

Mulch should be applied about 3 inches thick. Thicker applications encourage shallow root growth by preventing water from being adequately absorbed by the soil. Care should be taken to keep mulch away from the trunks of trees and shrubs, where it can cause rotting of the wood.

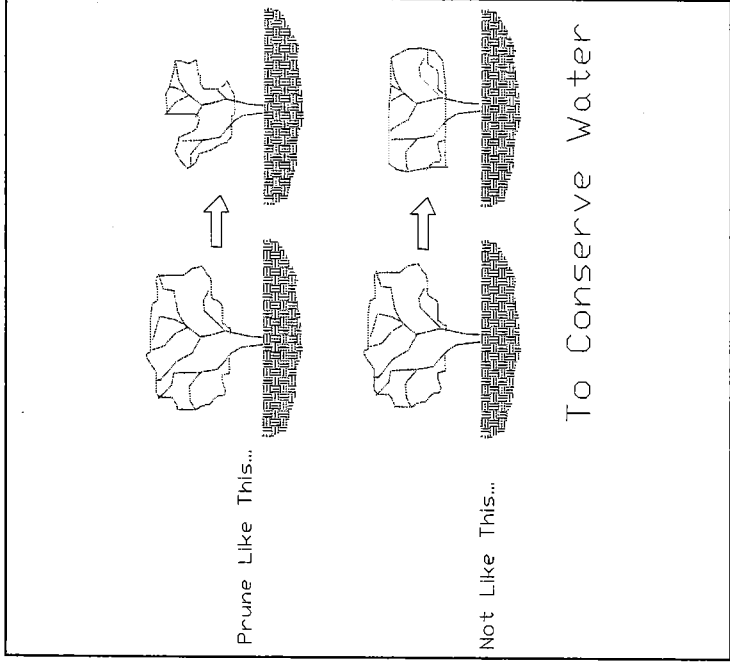
### Maintenance

The Omak Zoning Ordinance specifies that required landscaping be maintained in a healthy condition. Plants must be replaced if they die. Also, noxious weeds must be controlled [18.16.040(G)(2)]. Property owners that use water conserving ideas can expect to enjoy lower maintenance costs.

Maintenance strategies for xeriscape-type landscape concentrate on discouraging water-demanding new growth on plants. This is not to say that plants are allowed to become unhealthy. Ideas that retard growth but maintain plant health include less fertilizer, a lighter touch with the pruning shears, and of course, less watering.





Slow release fertilizers are worth the higher initial cost since they last longer and do not wash away in runoff water. Once plants are established, don't be afraid to decrease the quantity of fertilizer being applied, especially during the hot months of summer.

Often overlooked, pruning techniques can also influence water use. Shearing, or heading back, plants promotes extensive new growth and should be avoided if you're trying to save water. Thinning, as contrasted on the following page, results in a more natural, open form and is less stressful to the plant.



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If you have lawn area (and you shouldn't have much if you're using this guide), you should raise the blades of your mower in the summer so that the additional shade created by longer grass conserves water and encourages vigorous root growth. Other money saving maintenance tips include:

-  Keep weeds to a minimum by using porous landscape fabric (not impermeable plastic). Weeds compete with landscape plants for water.
-  Consider alternatives to insecticides. If you use them, spray or apply it only where it is needed.
-  Learn how to "read" your plants to determine when water is needed.
-  Periodically make sure irrigation systems are working properly.

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# Summary

Remember -- the landscape does not save water. How we use and work with it does. Significant savings in water and maintenance costs can be enjoyed by simply breaking bad watering habits and by using plants in a way that makes good economic and common sense.

Questions about Omak's Zoning Ordinance? Comments or suggestions regarding this guide book? Please contact the City of Omak at the address below.

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City of Omak  
P.O. Box 72  
Omak, WA 98841  
(509) 826-1170

This guidebook was prepared  
by the City of Omak with assistance from:

Highlands Associates  
P.O. Box 1431  
Okanogan, WA 98840  
(509) 422-5030

# Appendix A

## Recommended Plant Species for Xeriscapes

### Plants for Low Water Use Zone

Trees	Genus	Deciduous (D) Evergreen (E)	Comments
Honeylocust	Gleditsia	D	Thornless varieties are lower maintenance.
Black Locust	Robinia	D	Grows quickly; limbs may break in strong winds
Limber Pine	Pinus	E	Slow growing
Bristlecone Pine	Pinus	E	Very slow growing.
Goldenrain Tree	Koelreuteria	D	Needs watering when young.
Siberian Pea Shrub	Caragana		Good screen; but marginal ornamental value. Sometimes considered a shrub.
Western Redbud	Cercis	D	Also consider the larger "Eastern" redbud
Russian Olive	Elaeagnus	D	Willow-like character

	Genus	Deciduous (D) Evergreen (E)	Comments
<b>Shrubs</b>			
Silvermound	Artemisia	D, E	Related to sagebrush. Many species available
Juniper	Juniperus	E	Generally don't like heavy shade. Respect mature size when you plant
Staghorn Sumac	Rhus	D	Very low maintenance. Smooth Sumac also appropriate.
Smoketree	Cotinus	D	Sometimes considered a shrub. Very attractive.
Rabbitbrush	Chrysothamnus	D	Native.
<b>Ground-covers</b>			
Blue Fescue	Festuca	D	Ornamental grass
Kinnikinick	Arctostaphylos	E	Low growing native
Thyme	Thymus	E	
"Lowfast" Cotoneaster	Cotoneaster	D	Very hardy
Juniper	Juniperus	E	Many varieties available
Hens and chicks	Sempervivum	E	Considered a succulent. Also check out sedum.



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## Herbaceous Flowering Plants That Need Little Water

The following perennials and annuals have been effectively used in low water use landscaping throughout the region. Be advised that they may require more maintenance than other ground covers suggested above.

<u>Common Name</u>	<u>Genus</u>
Common Thrift	Armeria
Basket of Gold	Aylssum
Spider Flower	Cleome
Purple Coneflower	Echinacea
Verbena	Abronia
Butterfly Weed	Asclepias
Blue Flax	Linum
Creeping Flox	Phlox
Gloriosa Daisy	Rudbeckia
Creeping Zinnia	Sanvitalia
Sunrose	Helianthumum
California Poppy	Eschscholzia
Cosmos	Cosmos spp.
Nasturtium	Tropaeolum
Moss Rose	Portulaca
Aster	Aster
Yarrow	Achillea

Plants for Moderate Water Use Zone

	Botanical Name	Deciduous (D) Evergreen (E)	Comments
<b>Trees</b>			
Colorado Spruce	Picea	E	Requires ample room.
White Fir	Abies	E	Branched to the base.
Bradford Pear	Pyrus	D	Relatively formal shape.
Silver Linden	Tilia	D	Excellent form; good street tree
Hornbeam	Carpinus	D	Trouble free; European variety preferred over American.
Austrian Pine	Pinus	E	Suitable for a variety of purposes.
Hedge Maple	Acer	D	Best maple for dry areas.
Tallhedge Buckthorn	Rhamnus	D	Upright, narrow form.
Mountain Ash	Sorbus	D	Fruit popular with birds
<b>Shrubs</b>			
Western Serviceberry	Amelanchier	D	Fruit is popular with birds.
Burning Bush	Euonymus	D	Bright red fall color.
Sea Tomato	Rosa rugosa	D	Also known as Ramanas Rose
Viburnum	Viburnum	D	Many species.

	Botanical Name	Deciduous (D) Evergreen (E)	Comments
Potentilla or Cinquefoil	Potentilla	E	'Fruicosa' is common. Requires regular pruning when in ideal spot.
Cotoneaster	Cotoneaster spp.	D	Peking and Cranberry are best for drought tolerance. Has tendency to collect litter
Oregon Grape	Mahonia spp.	E	Many varieties available.
Barberry	Berberis spp.	D	Red leaves add interest, many species.
<b>Ground-covers</b>			
Snow-in-Summer	Cerastium	D	Perennial
St. John's Wort	Hypericum	E	Bright yellow flowers.
Daffodil	Narcissus	Bulb	Requires less water than nearly all other bulbs.
Mexican or Creeping Evening Primrose	Oenothera	E	Not the more well known Primula species.
Bishop's Weed	Aegopodium	D	Can become invasive.

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## Plants for **High** Water Use Zone

Generally, plants not on the preceding lists can be considered high water use plants. When selecting these plants for high water use areas, keep in mind maintenance requirements.

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# Appendix B

## Local Knowledge

### General Advice, Landscape Professionals, and Nurseries

WSU Cooperative Extension  
Okanogan County Courthouse, Rm 101  
422-7245

Aeneas Lumber and Nursery  
29 Clarkson Mill Rd, Tonasket  
486-2577

All Occasions Floral and Gifts  
129 S. Main, Omak  
826-0844

Windy Valley Landscaping  
Route 1, Box 37E, Brewster  
689-3217

Bellano Gardens Nursery  
1028 1st Ave., Okanogan  
422-2862

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Nelson's Flowers  
235 2nd Ave., Okanogan  
422-2660

Pogue Nursery  
Omak  
826-3075

Shady Creek Gardens and Ponds  
1989 Old 97 Road, Okanogan  
422-4568

Wilson Gardens  
Highway 97, Brewster  
689-2734

**Garden Supplies**

Covey's  
560 E Riverside Dr., Omak  
826-2321

Hamilton Farm Equipment Center  
1 Patrol, Okanogan  
422-3030

Omak Rental and Sales  
Hwy 97 and Cople Rd., Omak  
826-4630

Bramer True Value Hardware  
105 N. Main, Omak  
826-0371

Okanogan Lumber Co.

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201 1st Ave., Okanogan  
422-2880

Omak Ace Hardware  
317 S. Main, Omak  
826-0640

Wal-Mart  
900 Engh, Omak  
826-6002

Tonasket Feed and Supply  
210 S Western Ave., Tonasket  
486-2234

Omak Feed and Supply  
3 E. Dewberry, Omak  
826-1160

Okanogan River Natural Foods Coop  
21 W. 4th, Tonasket  
486-4188

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Grange Supply Co.  
604 Hwy 97, Brewster  
689-2423

Lee Franks  
324 S. Whitcomb, Tonasket  
486-2105

Hughes Floral  
446 Hwy. 7 S.  
486-2402

**Irrigation**

B & B Sprinklers  
623 W 1st, Omak  
826-4295

D & L Waterworks  
Valley View Drive, Omak  
826-2085



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**The following people are thanked for their thoughtful comments and suggestions during the development of this booklet:**

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*Donna Newell, Shady Creek Gardens and Ponds*