A MODEL FOR A SUSTAINABLE URBAN

ALEX LIPSHUTZ AND NIKKI HENDRICKS FOR 445 SPRING 2006

ABSTRACT

The sustainable landscape model we are creating is an attempt to visually make community members aware of the water issue in our region. This xeric landscape will be aesthetically pleasing as well as functional, to represent the suitability for residential function. Water consumption is an issue in the West, typically 60-90% of all water use by single-family residences is for landscape irrigation, and most of this water is used to water grass. Our sites water will be monitored to measure the reduction of water use from this landscape.

OBJECTIVES

- *Demonstrate waterwise landscaping
- *Measure and Monitor water-use change in selected area
- *Observe plant health with change in water
- *Inspire future projects in community and private settings





NATIVE FESCUE ARE

METHODS

Planning:

- •evaluation of the site and environment
- •exposure to sun (full sun butshaded at east end by juniper and ponderosa pine)
- •soil quality (native, compact, dry and sandy)
- •native plants (primarily Festuca idahoensis, see table below for other natives being planted)
- •moisture levels (currently irrigated)
- •intended use (To create an aesthetic waterwise landscape) <u>Soil:</u>
- dry and sandy
- ·addition of organic matter

Plants

- Selected for there ability to thrive in poor soils and dry environments
- •Seedlings started in the greenhouse at the Chandler building
- •Listed in Table 1

Mulch:

•Will be used to enhance soil moisture, keep out weeds, maintain cooler ground temperatures

Irrigation:

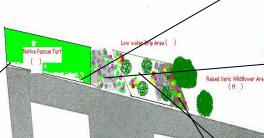
- Altered to demonstrate the ability to conserve water
- •reduced irrigation in the native fescue turf area
- •installed drip lines in the non-turf area
- •reduced the size of irrigation pipe used
- •switched to more efficient sprinkler heads
- •used xeric species in raised beds with no irrigation
- •Future usage comparisons with adjacent fescue and shrub areas in front of Cascades hall.



MODEL SITE

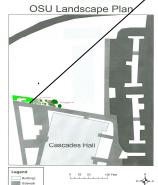
*Located on the Northwest corner closest to the street of the Cascades Hall.

*We chose this site because it is in a high traffic area and has its own irrigation system.





PATH AREA BETWEEN FESCUE AND LOW WATER DRIP AREA





PLANTS SELECTED		
TYPE	NAME	ZONE \
GRASSES	Idaho fescue (Festuca idahoensis)	Native Turf and Low water drip
	Sqirreltail (Elymus elymoides)	Native Turf and Low water drip
	Basin ryegrass (Lolium)	Low water drip
PERENNIALS	Rocky Mt. penstemon (Penstemon spp.)	Xeric wildflower area
	Black eyed Susans (Rudbeckia nirta)	Xeric wildflower area
	Firecracker penstomen	Xeric wildflower area
	White yarrow (Achillea millefolium)	Xeric wildflower area
	Prairie coneflower(Ratibida columnifera)	Xeric wildflower area
	Purple coneflower (Echinacea purpurea)	Xeric wildflower area
	Creeping thyme(Thymus serpyllum)	Xeric wildflower area, pathway
	Russell lupine (Lupinus polyphyllus)	Xeric wildflower area,low water drip
ANNUALS	Rocket larkspur (Delphinium ajacis)	Low water drip area
	Phacelia (Phacelia secunda)	Low water drip area
	Clarkia (Clarkia amoena)	Low water drip area
SHRUBS	English lavendar	Xeric wildflower area, low water drip
	Sage (Artemesia tridentata)	Low water drip area
	Manzanita (Arctostaphylos colombiana)	Low water drip area



SHOWING A DRIP LINE WATERING PLANTS



COLORFUL XERIC WILDFLOWER AREA