

Drought Response Plan

The University of Nevada, Las Vegas, as a government agency and as a center point in the community, has a commitment to the conservation of water in Southern Nevada. Being a state agency, we are submitting this Drought Response Plan to the State of Nevada Division of Water Resources following the guidelines imposed by the Clark County Environmental Planning Division and the Las Vegas Valley Water District.

A. Water Use Reduction Statement:

In part of a long-range drought plan, UNLV has been striving for a 25% reduction in outdoor water use by the year 2010. It is clear that the largest loss of water is due to outdoor use, mostly from the watering of turf with overhead spray or rotor system. Since 1995 UNLV has been committed to the reduction of turf on campus. In the last five years the University has reduced turf by 200,584 sq. ft. with an estimated water savings of over 9,000,000 gallons and over \$20,000 annually. This reduction is documented with the Southern Nevada Water Authority including: the football field conversion to Astroturf, and turf conversions to xeriscape were completed at the football area, Central Desert Complex, Boyd School of Law, and White Hall.

During 2003 to 2004 there will be a reduction of approximately 45,000 sq. ft. of turf at Wright Hall due to a project. A large portion of this area will be replaced with either hardscape or the new buildings. The 10,839 sq. ft. of new landscape in this area will be xeriscape or low water usage design to match the existing Desert Garden directly to the west side of this project.

Included in this time frame are smaller areas of campus that will be renovated to desert landscape. One area is located at the west side of MPEC; this is an estimated removal of 13,000 sq. ft. of turf. Also the area of turf at the Boy Scout Building that has been converted to a parking lot is scheduled to be xeriscaped. These two areas combined have well over 20,000 sq. ft. of turf that will be removed.

We are looking at the removal of 92,000 sq. ft. of turf located along Tropicana during 2004-2005. The future plans for this area has not been completed at this time, but we are looking into two options. The options are to have a large portion turned into a parking lot and the remainder to desert landscape, or to have the entire area turned to desert landscape. A portion of turf will remain either way directly south of the dorms for student activities.

The expansion of the Student Union is tentatively scheduled for 2005-2007. It is proposed to expand to the east, which could result in removal of turf in that area.

Opportunities for further turf reduction during 2004-2010 may materialize on the north side of White Hall. These opportunities may develop due to new construction of the Science, Engineering, and Technology Building. Also, there is proposed construction plans at the Central Desert Complex, which would expand the building to the north reducing the existing turf on the band field. There is approximately 35,000 sq. ft. of turf on the east end of campus located along Maryland Parkway between Cottage Grove and University Drive that we would like to convert to desert landscape. These are various smaller sections of turf that we would like to consider for conversion, but these jobs will be dependant upon funding and manpower.

B. Sites Covered By Drought Response Plan:

The main campus located at 4505 South Maryland Parkway, which consists of 337 acres of various types of landscaped areas that will be covered by the Drought Response Plan.

C. Central Control System Standards:

UNLV's standard controller is the Rainbird ESP SAT. It has various programming capabilities enabling custom programming that includes odd-even day programming, cycle/soak capabilities, and multiple start times. This unit is tied into a computerized unit named Rainbird Cluster Control Unit, which through phone line is connected to our central computer that runs the rainbird Maxicom program. This enables such programming as automatic shut down with the use of flow sensor, decoders, and also automatic irrigation adjustment through Evapotranspiration database, which is linked into UNLV's weather station for automatic irrigation adjustment due to changes in weather.

D. Metering:

UNLV has no sub metering for its irrigation system on main campus.

E. Documentation of Baseline Water Consumption:

UNLV's water use for fiscal year 2002-2003	
Area	Kgal
Houssel House	903
Arch Annex	219
University Hall	367
Flamingo and Swenson	996
Maryland Parkway and Cottage Grove	223
Harmon and Maryland Parkway	282,538
Architecture Building	3,032
Paradise Campus	13,385
Eller Media Softball Stadium	3,243
TOTAL	304,906

F. Irrigation System Efficiency and Turf Reduction:

UNLV's irrigation systems in turfed areas are designed to provide maximum coverage with minimal runoff. Cycle/Soak programming is often used where runoff may occur. Continual adjustments are made to ensure irrigation heads are adjusted in such a manner as to prevent the spray from going off the turf. Subsurface or drip irrigation systems are used in non-turf areas with the required amount of emitters placed for plant use. Turf Reduction has been covered in [Section A](#).

G. Employee Training:

Our entire Grounds Department has been made aware of the drought situation. Any irrigation watering outside of the implemented schedules will immediately be reported to the irrigation or grounds supervisor for correction, and the crews are trained to make immediate repairs on any broken or malfunctioning irrigation component. The irrigation crew members have reached various levels of training through the Irrigation Association courses, as well as courses obtained through Rainbird Irrigation. Some of these classes are Irrigation Auditing, Electrical Troubleshooting, Water Management, and Irrigation Design.

H. Reporting:

Any variation of the implemented schedule, do to events being held or over seeding of areas on the assigned watering days will be reported to the Las Vegas Valley Water Conservation Division for review and rescheduling.

I. New Landscape Development:

All new landscape will be designed in such a manner that will be aesthetically pleasing as well as water conscience. In regards to future installations, this subject was covered in detail in Section A.

J. Public Education:

Signage is posted throughout campus in compliance with the guidelines imposed, indicating where UNLV's Drought Plan and watering schedule can be found. This information is also being made public here, on UNLV's Landscape and Grounds Website.

K. Demonstrates a Need Based on Public Usability of the Facility:

UNLV, being a State University with over 25,000 students attending, has a wide range of public uses, which include walk-a-thons, Presidential speeches, numerous sporting events, as well as a variety of campus-sponsored events. The public and various entities throughout Clark County are continually using the grounds of UNLV.

Please forward any question regarding this plan to:

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