Tempering the Thirst
Of America’s Driest City

Prepared for:
Rocky Mountain Land Use Institute

2 March 2012
Colorado River

- Serves about 30 million people in 7 states and Mexico
- Irrigates about 1.8M acres of farmland (over 70% of water use)
- Allocations exceed average flow by 15-20%
- Drought and climate change impacts
- Current storage about 50% of capacity
- Provides 90% of Southern Nevada’s Water
Dividing the Waters: Who shares the Colorado?

Colorado River Appropriations

- Nevada: 0.3
- New Mexico: 0.85
- Wyoming: 1
- Mexico: 1.5
- Utah: 1.7
- Arizona: 2.85
- Colorado: 3.9
- California: 4.4

7.5 million Acre Feet for Lower Basin states
Southern Nevada uses just 1.8 percent of the water allocated from the Colorado River, but it constitutes 90 percent of our supply.
Water used indoors is recovered for direct or indirect reuse. Improving outdoor water use efficiency produces the greatest water resource benefit.
Southern Nevada Metered Water Use

Based upon 2009 metered usage for all SNWA entities
Caesar’s Palace Street View
Caesar’s Palace Aerial

Southern Nevada’s resorts account for less than 3 percent of consumptive water use.
Mega-Resort Water Use

- Consumptive (outdoor): 25%
- Non-consumptive (indoor): 75%

Evaporation from cooling systems exceeds the combined use of landscape, water features and pools.

Mega-Resort Facts
- About 3,000 rooms
- Average 110 acre parcel
- < 2% pools & fountains
- < 4% landscaping
- ~94% buildings & surfaces
The SNWA and its member agencies utilize a variety of tools to promote conservation and reduce overall water use.
Education

The SNWA has one of the nation’s most comprehensive public outreach programs.

– Award-winning website
– Quarterly newsletter
– Hands-on classroom training
– School Teacher training
– Community Gardens
– Monthly television show

Springs Preserve sustainability complex
Limitations on ornamental turfgrass

Water budgets for Golf Courses

Mandatory watering restrictions

Water-waste enforcement

Limitations on fountains and man-made lakes
Monthly Consumption
Standing Homes Built 1990-1995

Average Monthly Consumption
Two calendar years of 2007-2008

- Consumption
- Month
  - Jan
  - Feb
  - Mar
  - Apr
  - May
  - Jun
  - Jul
  - Aug
  - Sep
  - Oct
  - Nov
  - Dec
  
  - 25,000
  - 20,000
  - 15,000
  - 10,000
  - 5,000
  - 0

Construction Years 1990 - 1995
Monthly Consumption

Average Monthly Consumption
Two calendar years of 2007-2008

Month
Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

Consumption
0  5,000  10,000  15,000  20,000  25,000

Construction Years 1990 - 1995
Construction Years 2000 - 2003
Monthly Consumption
Water Smart Homes Comparison

Average Monthly Consumption
Two calendar years of 2007-2008

Month
Consumption

Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

5,000  10,000  15,000  20,000  25,000

- Water Smart Homes
- Construction Years 1990 - 1995
- Construction Years 2000 - 2003
- Same Construction Years as WSH 2005 - 2007
Water Pricing

Four-tier increasing block rate structure.

Rate blocks have been compressed and steepened over time.
Water Smart Landscape Rebate

Up to $1.50 rebate for each square foot of lawn converted to water-efficient plants and irrigation.

- Reduces landscape water demand by 75 percent
- 158 million square feet converted
- $176 million rebated
- 8.8 billion gallons saved annually
- 50 billion gallons saved cumulatively
Partnerships

Partnerships accelerate adoption and build community ethic:

• Water Smart Home
• Water Smart Contractor Program (Landscape)
• Water Smart Car Wash
• Water Upon Request Program (Restaurants)
• Linen Exchange (Lodging)
• Water Conservation Coalition (Business)
SNWA Weather Normalized
Gallons Per Capita Per Day (GPCD) 1990 - 2010

Goal 199 GPCD by 2035
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