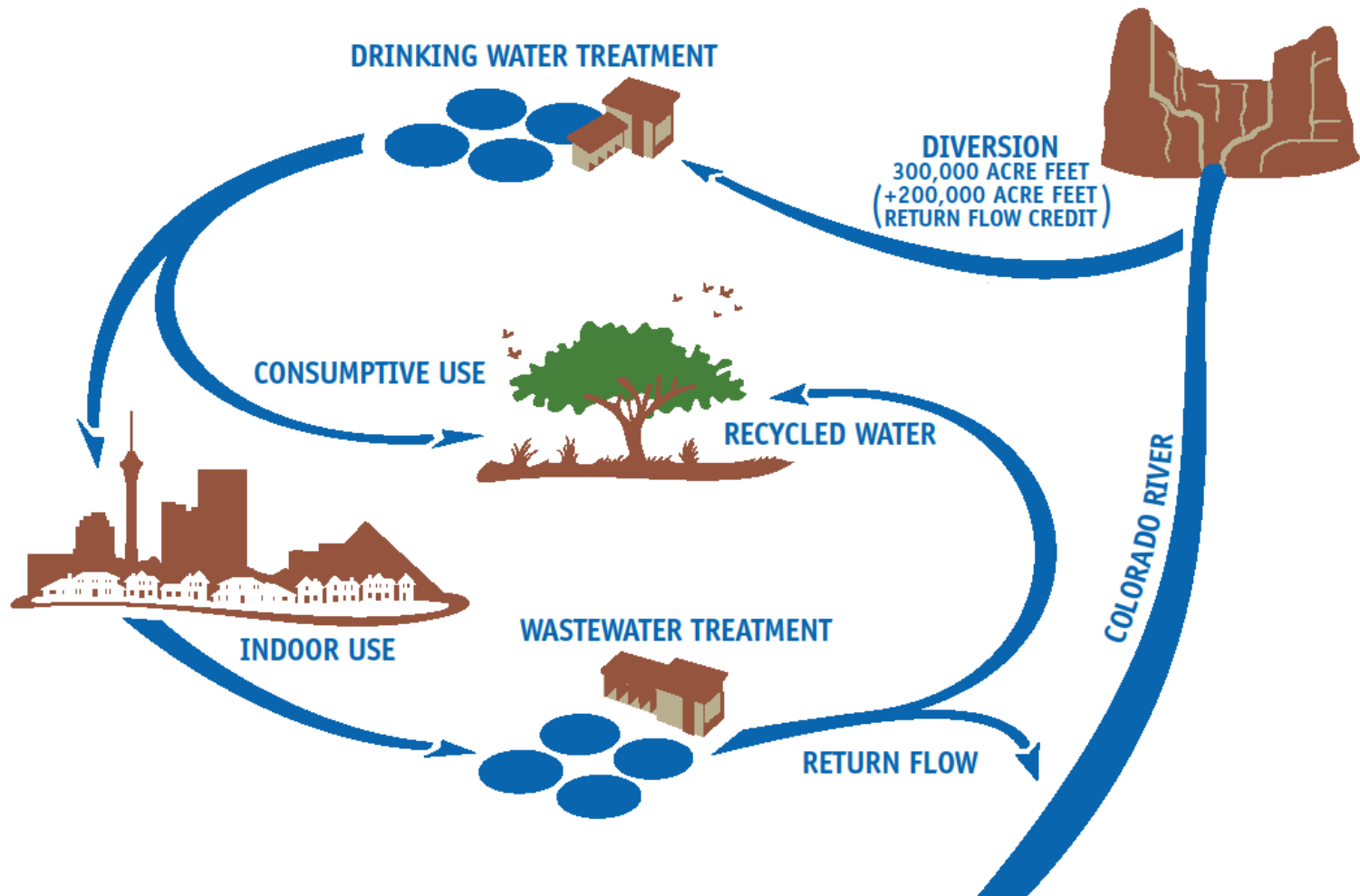


Indirect Potable Reuse in the Las Vegas Valley

Dennis Porter, P.E.

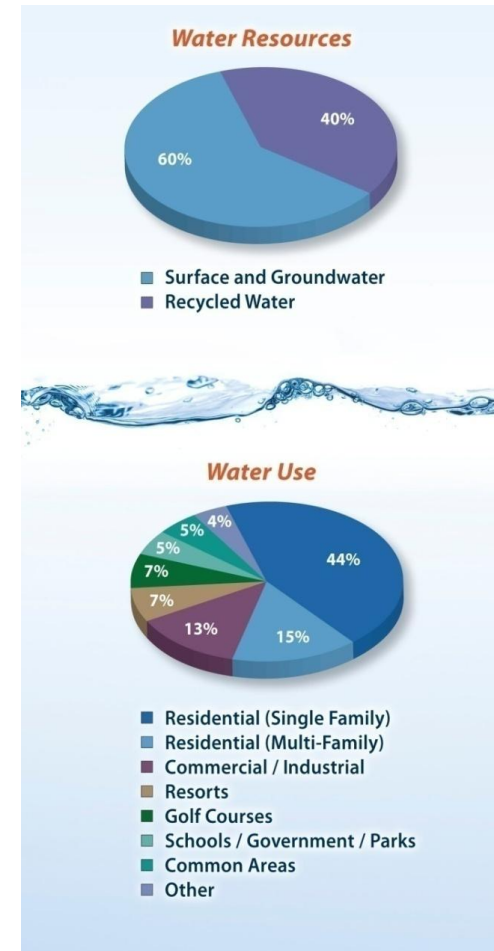
Chairman, Las Vegas Valley Watershed Advisory Committee

Indirect Potable Reuse in the Las Vegas Valley



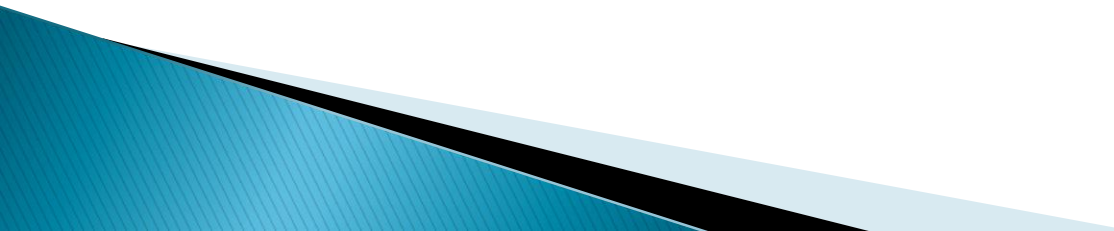
Indirect Potable Reuse in the Las Vegas Valley

- ▶ Indirect potable reuse makes up about 40% of the Las Vegas Valley water resources
- ▶ Of the remaining water resource, the Colorado River provides 90% and groundwater provides 10%

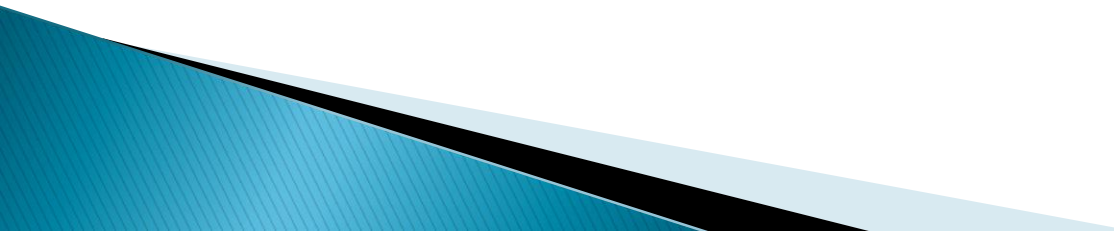


Indirect Potable Reuse in the Las Vegas Valley

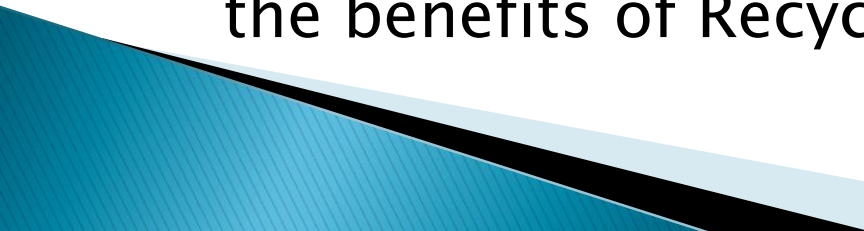
Southern Nevada Policy Regarding Recycled Water:

1. Expand return flow to the Colorado River to increase Nevada's credit for subsequent withdrawal.
 2. Expand the use of Recycled Water in the Las Vegas Valley where large turf and industrial demands exist.
- 

Indirect Potable Reuse in the Las Vegas Valley

3. Maximize the use of Recycled Water in areas of Southern Nevada where return flow to the Colorado River system is not practical, including the testing of aquifer storage and recovery
 4. Develop a Salt Management Strategy to address the accumulation of salts in Recycled Water that are detrimental to some uses.
- 

Indirect Potable Reuse in the Las Vegas Valley

5. Continue to advance the research of the health and safety implications of Recycled Water.
 6. Prohibit the use of treated or untreated Graywater in the Las Vegas Valley and prohibit its use outside the valley where there is reasonable potential for return flow to the Colorado River system or other Water Recycling programs.
 7. Educate the public about our local water cycle and the benefits of Recycled Water.
- 

Indirect Potable Reuse in the Las Vegas Valley

Regulatory and Water Quality Considerations



- The Clean Water Act
- Safe Drinking Water Act
- Nevada Administrative Code
- Endangered Species Act
- National Historical Preservation Act
- Migratory Bird Treaty Act

Indirect Potable Reuse in the Las Vegas Valley

Regulatory and Water Quality Considerations



- Perchlorate
- Selenium
- Endocrine Disrupting Compounds (EDC's)
- Pharmaceuticals/Personal Care Products (PPCP's)
- Nutrients
- Endangered Species
- Lake Levels

Indirect Potable Reuse in the Las Vegas Valley

The Lake Mead Water Quality Forum was formed in 1997 to:

- Identify issues regarding the water quality of the Las Vegas Wash, Las Vegas Bay and Lake Mead
- Protect these water bodies for public and municipal water supply, aquatic life, wildlife, recreation and other beneficial uses
- Coordinate study efforts, provide technical updates and disseminate information to the public and enhance the public input process



Indirect Potable Reuse in the Las Vegas Valley

Members of the Lake Mead Water Quality Forum include:

- Cities of Henderson, Las Vegas, and North Las Vegas
- Clark County Regional Flood Control District
- Clark County Water Reclamation District
- Colorado River Commission of Nevada
- Metropolitan Water District of Southern California
- National Park Service
- Nevada Department of Wildlife
- Nevada Division of Environmental Protection
- Southern Nevada Water Authority
- United States Bureau of Reclamation
- United States Environmental Protection Agency
- United States Fish & Wildlife Service
- United States Geological Survey

Indirect Potable Reuse in the Las Vegas Valley

The Las Vegas Valley Watershed Advisory Committee (LVWAC) was formed in 2007. Its mission is to:

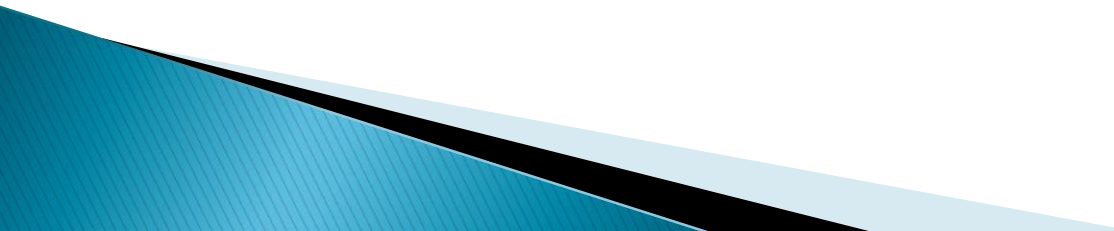
Protect, preserve and enhance the quality and quantity of water resources in the Las Vegas Valley watershed to sustain economic wellbeing and protect the environment for present and future generations.

Indirect Potable Reuse in the Las Vegas Valley

- The LVVWAC provides a forum to coordinate the efforts of all existing water and wastewater-related committees and efforts including:
 - Las Vegas Wash Coordination Committee
 - Boulder Basin Adaptive Management Plan
 - Lake Mead Water Quality Forum
 - Sewage and Wastewater Advisory Committee
 - Stormwater Quality Management Committee
- The LVVWAC also coordinates the efforts of water and wastewater treatment plant operators to manage water quality as it relates to intakes from and discharges to Lake Mead.

Indirect Potable Reuse in the Las Vegas Valley

Members of the Las Vegas Valley Watershed Advisory Committee include:

- City of Henderson
 - City of Las Vegas
 - City of North Las Vegas
 - Clean Water Coalition
 - Clark County
 - Clark County Regional Flood Control District
 - Clark County Water Reclamation District
 - Las Vegas Valley Water District
 - Southern Nevada Water Authority
- 

Indirect Potable Reuse in the Las Vegas Valley

- ▶ Indirect potable reuse is a significant component of the Las Vegas Valley's water resource portfolio.
 - ▶ The quality of indirect potable reuse is critical because it affects not only Las Vegas Valley residents, but also over 32 million downstream users including California and Arizona.
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