

# SUSTAINABLE ENERGY UPDATE 2012

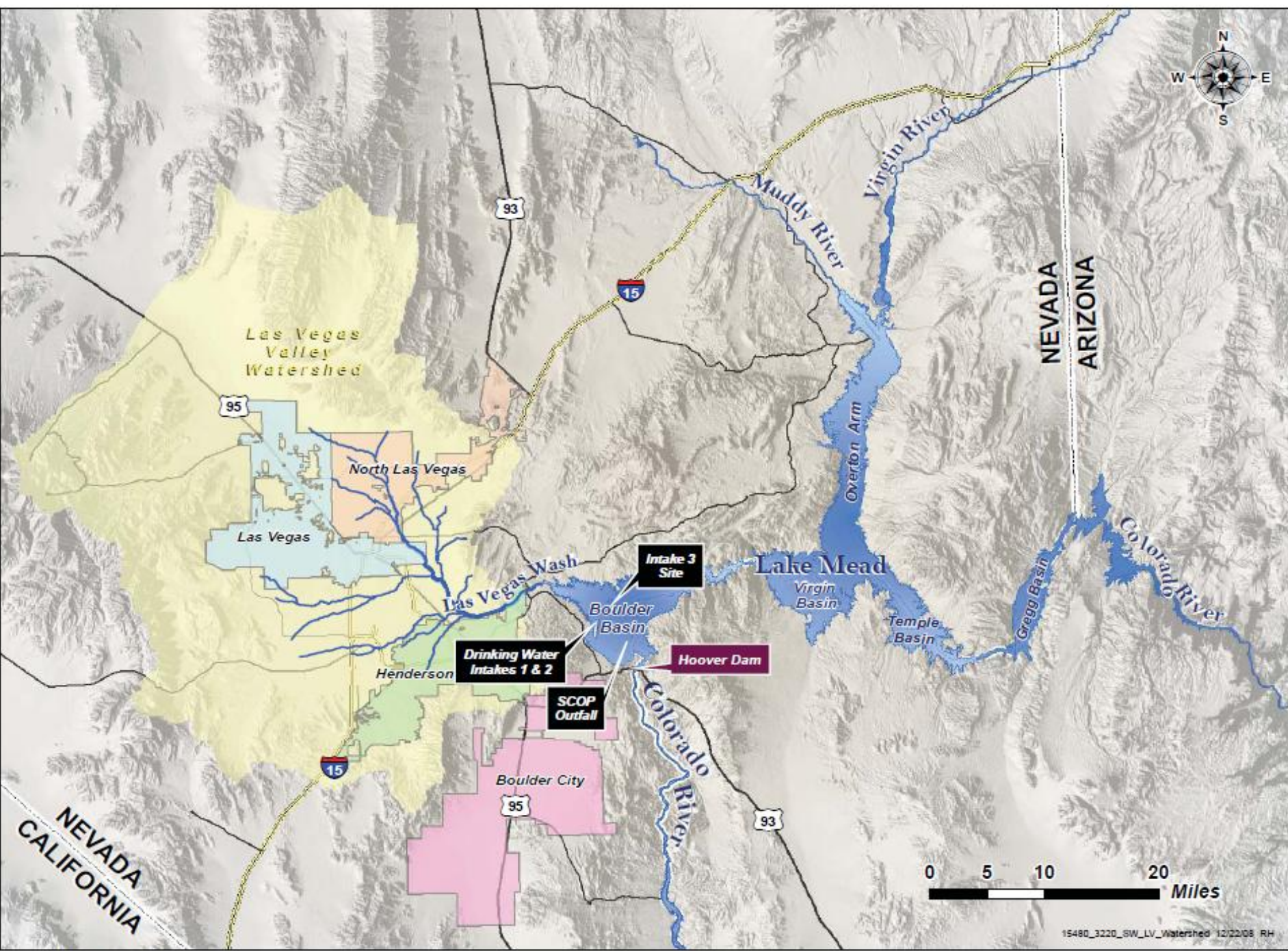




# City Government Snapshot

607,876 Population (City of Las Vegas) 1,952,040 Population (Metro area) 36.35 million visitors	<b>\$493 Million Annual Budget</b>
133.2 Square Miles	<b>\$10 Million Projected Budget Shortfall</b> for FY2011
19 City Departments	<b>\$15 Million+ Annual Energy Costs</b> (electricity + natural gas)
2951 +Employees	<b>\$47 Million Investment</b> in conservation and renewable energy
1000+ Vehicle Fleet	
187 Facilities including community centers, parks, pools, golf courses and water treatment plants	
3300 Utility Meters and Accounts	





Las Vegas Valley Watershed

Spring Mountain  
NRA

Desert Wildlife  
Refuge

Red Rock NCA

Las Vegas Dunes

Lake Mead  
Recreation Area

Sloan Canyon NCA



Spring Mountain  
NRA







# Background

*Sustainability – The concept of meeting the needs of the present without compromising the ability of future generations to meet their needs.*

## Administrative Process

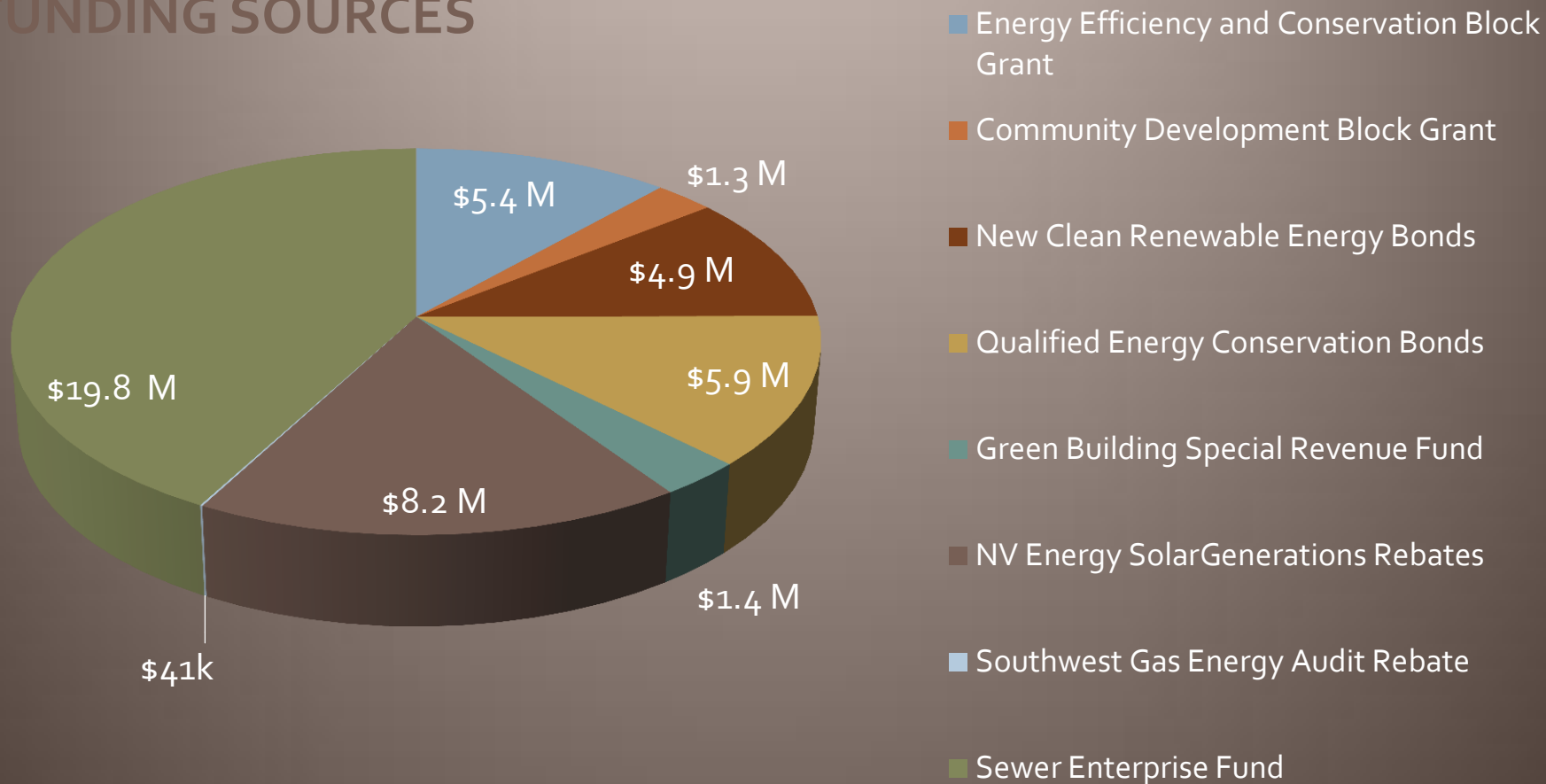
- Commitment to Concept
- Approval of Resolutions
- Development of Measurement Criteria
- Implementation Challenges
- Updates / Improvements

*“Future Proofing”*

# Overview

## Sustainable Energy Strategy 2012 Progress Report

### FUNDING SOURCES



**\$47 million Total Program Budget**



# Investment Decisions

## Sustainable Energy Strategy 2012 Progress Report

- Considerations
  - Funding/Rebates
  - Leverage
  - Payback
  - Energy Savings
  - Emissions Reductions



# Three Main Paths

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- Streetlight Retrofits
- Building Retrofits/Upgrades
- Solar Panels

# Investment Decisions

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Project	Jobs	Economic Development	SES Goals
Building Retrofits	Mid	Mid	Mid
Streetlight Retrofits	Low	Low	Mid
Solar Carports	High	High	High



# Current Strategy

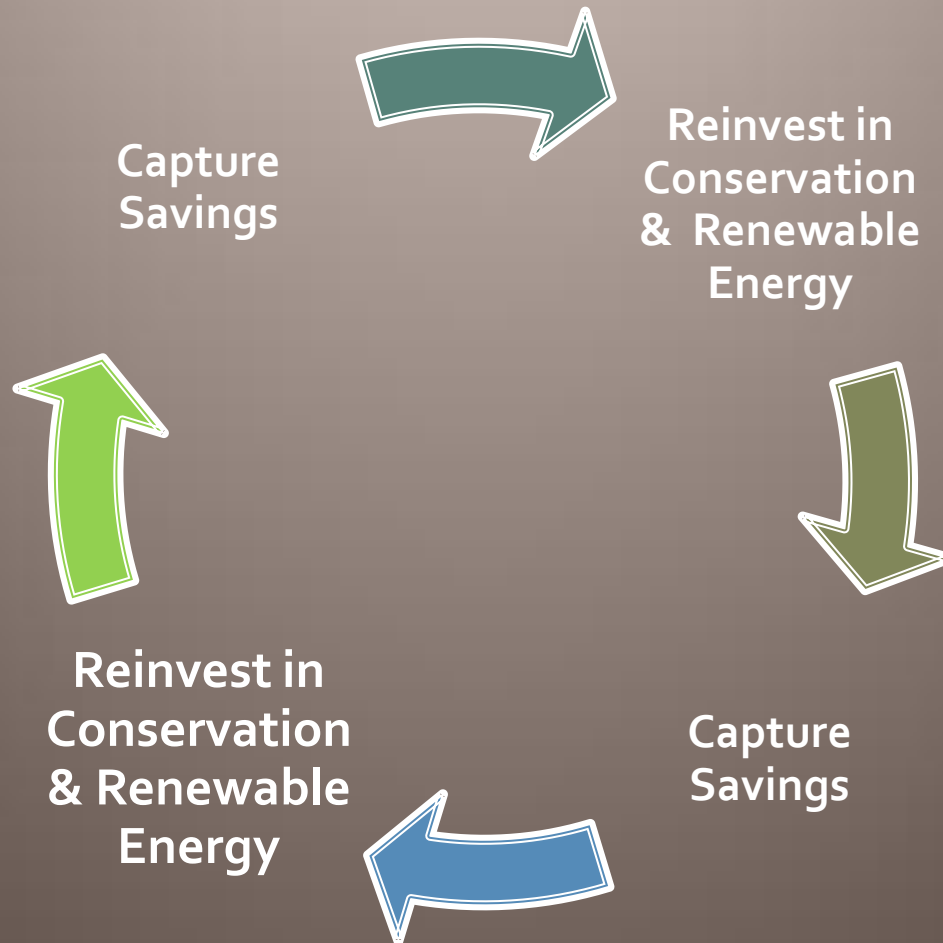
## Sustainable Energy Strategy 2012 Progress Report

Total Economic Impact: > \$50 Million

Project	Investment	Payback (years)	Energy Savings	Emissions	Jobs
Building Retrofits	\$3.75 M	10.6	\$290 k	1,946 tons <sup>3</sup>	65
Streetlight Retrofits	\$4.18 M	5.3	\$523 k	3,661 tons <sup>3</sup>	15
Solar Carports	\$17.22 M	14.1	\$395 k	2,765 tons <sup>3</sup>	236
<b>TOTAL</b>	<b>\$25.16 M</b>	<b>9.5</b>	<b>\$1.21 M</b>	<b>8,400 tons<sup>3</sup></b>	<b>316</b>

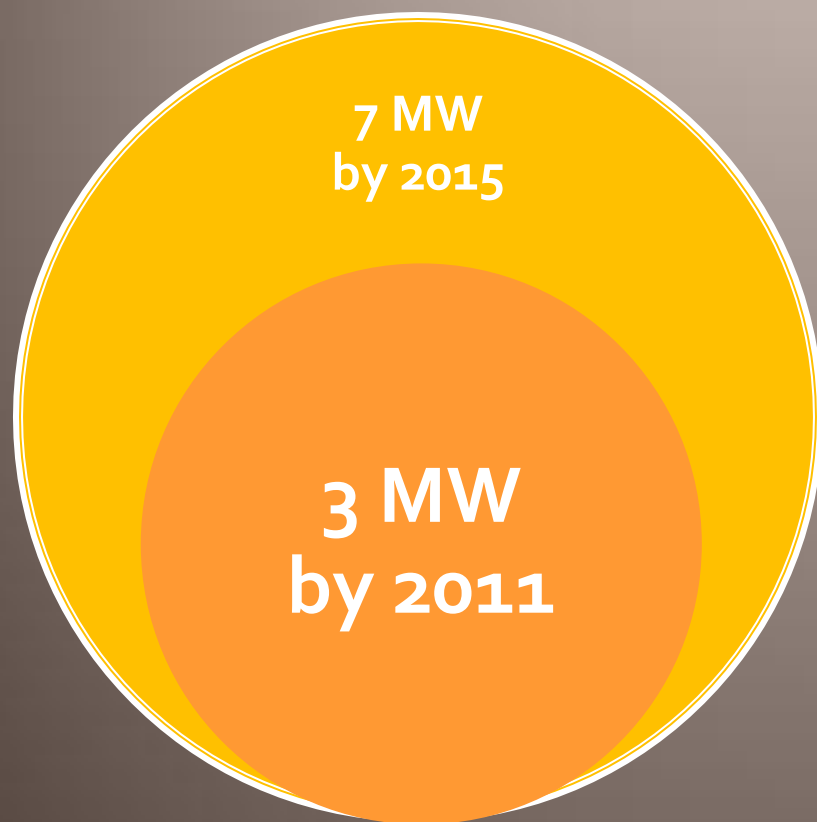
# Current Strategy

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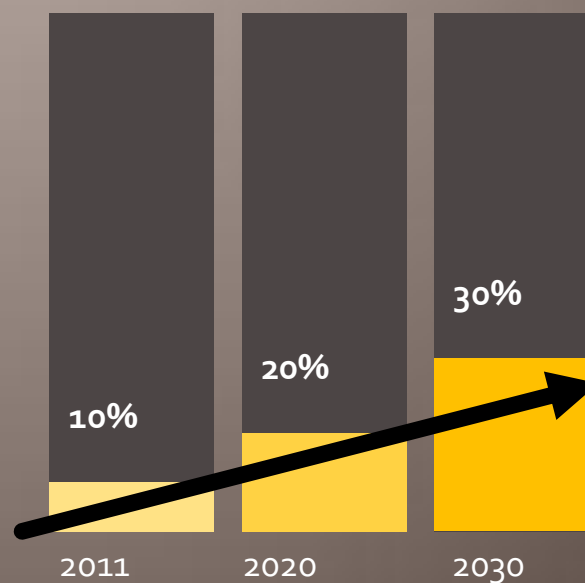
# Current Targets

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Solar

## Renewable Energy Portfolio Standard





# Project Progress

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- Building Retrofits
  - Design underway (April 2011)
  - DSC (Atrium) / Detention Ctr.
    - Windows
    - Chiller/Central plant
    - HVAC
    - Lighting
  - Retrofits at 10 other facilities
    - HVAC controls
    - Motion sensors
    - Lighting and lighting controls



# Project Progress

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- Streetlight Retrofits
  - Mercury Vapor / High Pressure Sodium replacements
  - ~ 6,700 in Phase 1
  - 37,000 in Phase 2
  - 10,000 in Phase 3



# Project Progress

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- Solar Covered Parking
  - 1.8 MW
  - Phase 1 rebates
    - \$541 k received





# Utility Account Management

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- Baseline Data / Benchmark Year 2008
- Key Categories
- Utilities Measured
- Proportionality
- Performance
- Reporting /Corrections



# Recycling

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- 50 Different items in 8 common categories
- Revenue negative / neutral / positive
- Offsite goal for collection
- Used by many departments / owned by few
- Threshold for supply / demand



# Next Steps

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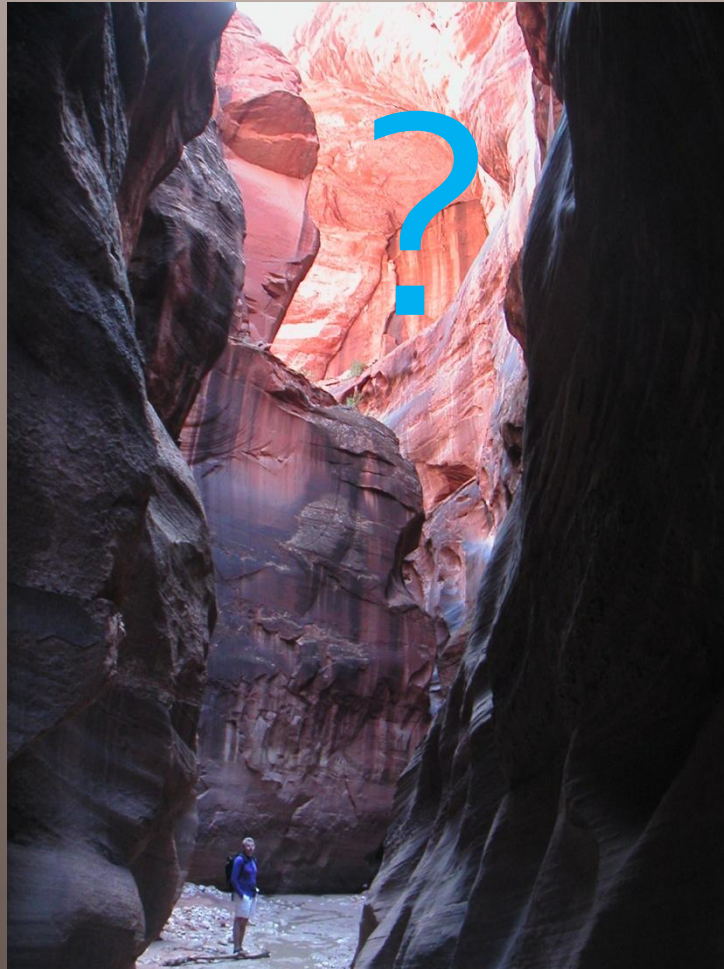
- Building Retrofits/Streetlight Retrofits
- Phase 2 Solar Covered Parking
  - 18 sites (885 kW)
  - \$4.11 M rebates
- Completion of 3 MW at Wastewater Treatment Plant





# Questions

Sustainable Energy Strategy 2012 Progress Report



Thank You

Jeff Dix  
City of Las Vegas