

# Supplemental Water Supply Program



# Program Outline

- Background
- Future Water Demands
- Annual Water Consumption
- Supplemental Water Supply Program Components
  - Recycled Water Program
  - Purchased Water
- Supplemental Water Supply Fee Calculation

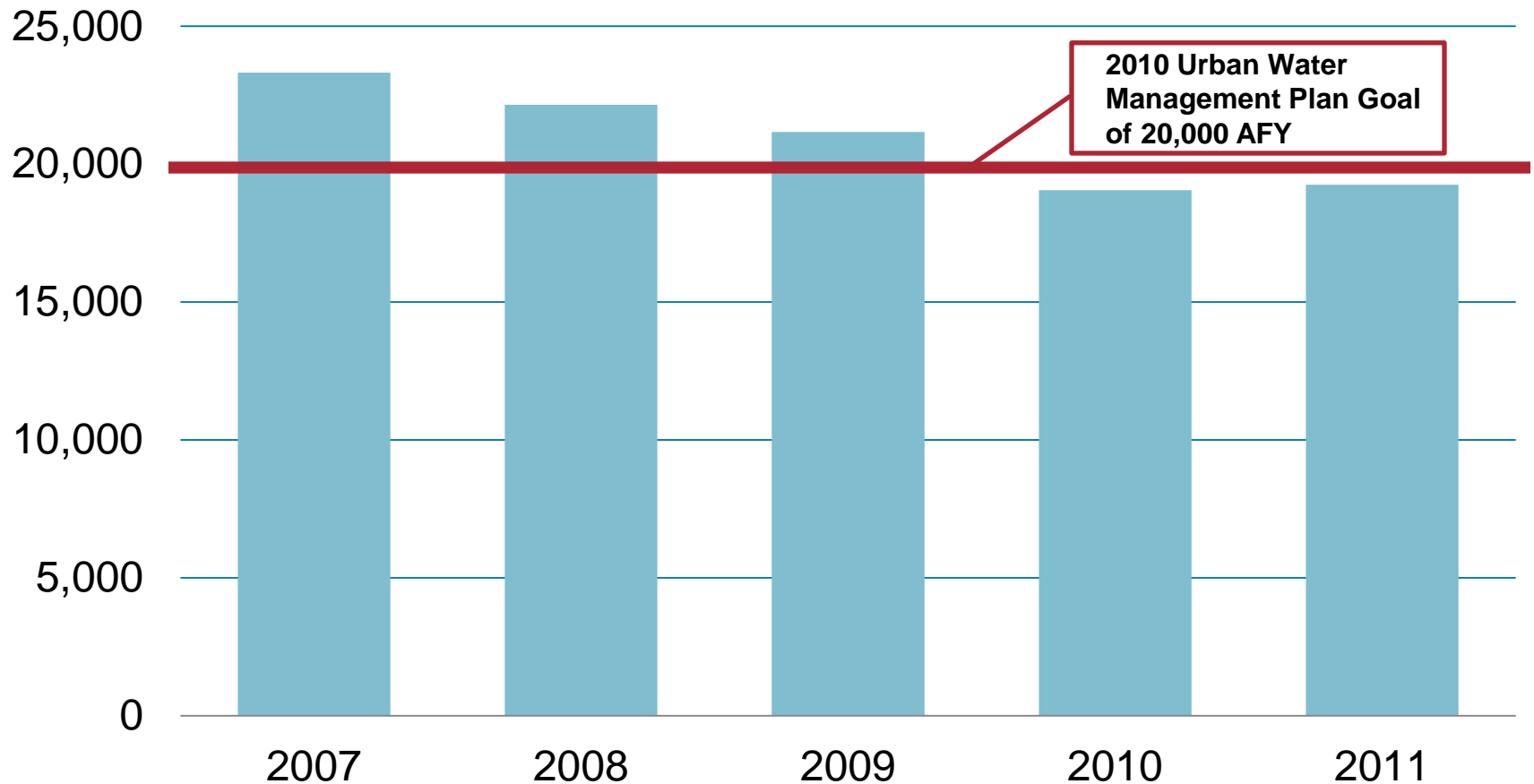
# Indio and CVWD Settlement Agreement Highlights



- Settlement Agreement between Indio and CVWD signed in July 2009
  - IWA Supplemental Water Supply Program implemented January 1, 2010 and effective July 1, 2012
  - First Amendment implementation by September 1, 2010 and effective March 1, 2011
  - Letter Extension provided based on Service Territory agreement to September, 2011
  - Second Amendment implementation by September 1, 2012 and effective March 1, 2013
- Supplemental Water Supply program will include provisions for case-by-case in-lieu mitigation measures
- Mitigation Fee to be based on water use per acre for different development types

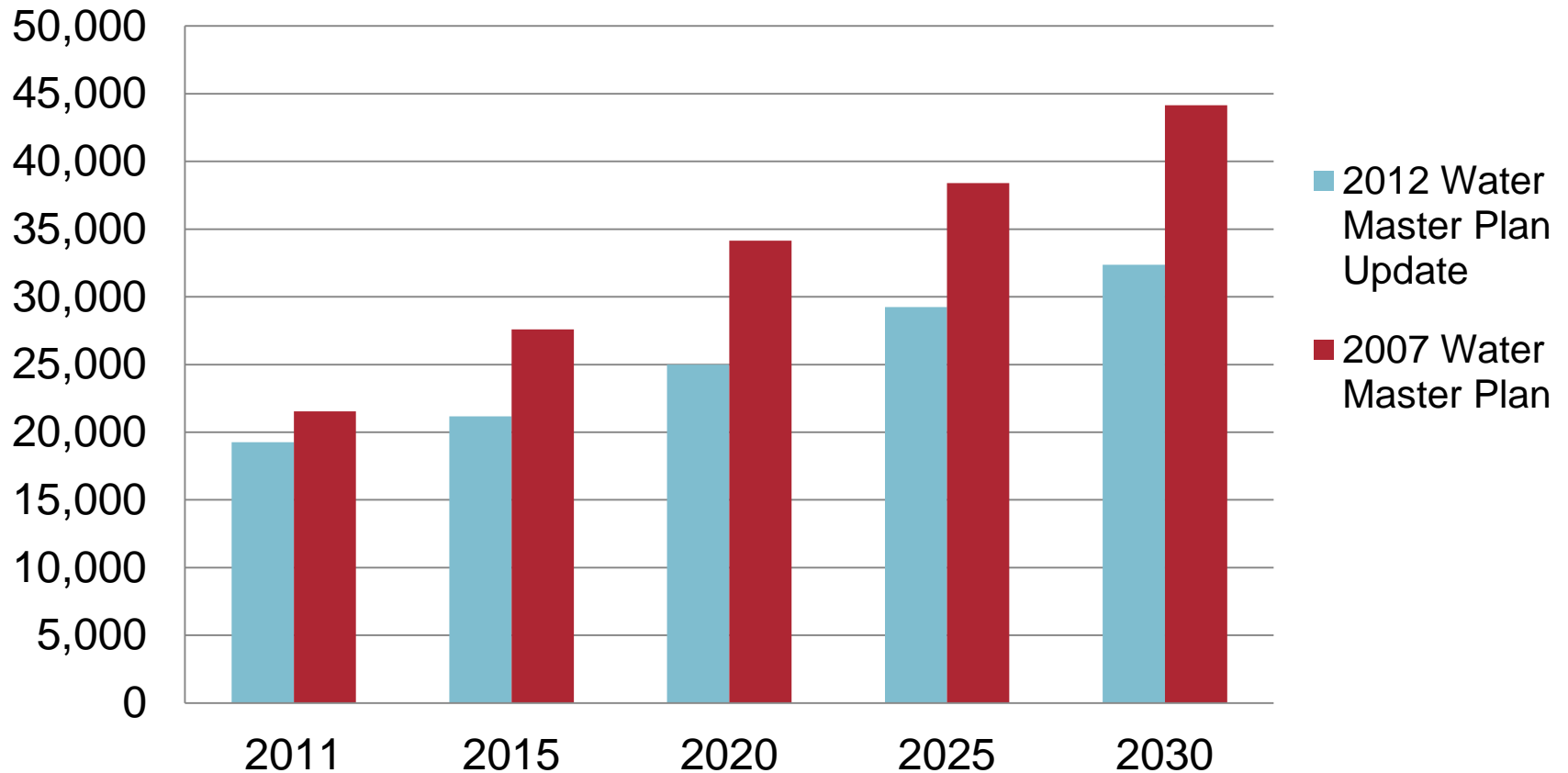
# IWA Groundwater Supply

## Historic Water Use in Acre Feet/Year (AFY)



# Projected Water Demands

## Water Use in AFY



# Moderate Growth Assumption

## Summary Of IWA Demand in AFY through 2030

| Baseline | 2015   | 2020   | 2025   | 2030   |
|----------|--------|--------|--------|--------|
| 20,052   | 21,172 | 24,981 | 29,238 | 32,374 |

An Additional 12,374 AFY needed through 2030

# Annual Water Consumption

| IWA Development Type                                   | Annual Consumption Factor (ac-ft/ac/yr) | Annual Consumption Factor with Return Flow (ac-ft/ac/yr) |
|--|---|--|
| Commercial/Institutional                               | 1.01                                    | .65  |
| Hotel/Motel  | 2.19                                    | 1.42   |
| Industrial   | 1.43                                    | .93  |
| Irrigation   | 2.37                                    | 1.54   |
| Multi Family Residential                               | 1.90                                    | 1.23   |
| <b>Single Family Residential</b>                       | <b>3.44</b>                             | <b>2.23</b>  |
| City Parks/Irrigation and Landscape Lighting Districts | 2.09                                    | 1.36   |

# Supplemental Water Supply Program

- Recycled Water
- Imported Water Purchase





# Recycled Water Program – Indirect Potable Reuse through Injection



- Joint funding of Engineer's Report/Feasibility Study with VSD
- USBR Grant funding
- Strategic Financing Plan
- Phase 1 capacity assumed to be 5,500 AFY available for reuse
- Preliminary Engineering Estimate for Phase I Capital Cost equates to \$8,735 AF
- 22% of full cost allocated to new development = \$1,922 AF

# Imported Water Purchase



- State Water Project Table A
- Delta Projects
- Central Valley Projects
- Colorado River Projects

# State Water Project Table A

| Agency              | Cost per AF | Reliability Factor | Adjusted Cost per AF |
|---------------------|-------------|--------------------|----------------------|
| CVWD                | \$3,225     | 64%                | \$5,289              |
| Mojave Water Agency | \$5,250     | 64%                | \$8,610              |

# Estimated Price of Purchased Water

| Purchase Option                      | Contract Amount (AF) | Annual cost per AF | Probability Factor | Weighted Cost, \$/AF |
|--------------------------------------|----------------------|--------------------|--------------------|----------------------|
| Deal 1                               | 8,400                | \$750              | 20%                | \$150                |
| Deal 2                               | 5,000                | \$550              | 10%                | \$55                 |
| Deal 3                               | 5,000                | \$1,000            | 30%                | \$300                |
| Deal 4                               | 4,000                | \$400              | 40%                | \$160                |
| Weighted Average Cost, \$/AF = \$665 |                      |                    |                    |                      |

# Supplemental Water Supply Program Fee Calculation

- Fee comprised of two components:
  - Estimated Recycled Water Program costs
  - Estimated Purchased Water costs
- Recycled Water Program costs
  - Phase 1 cost = \$8,736 AF
  - 22% of full cost allocated to new development = \$1,922 AF
- Purchased Water costs
  - Annuity formula to capture estimated cost for 5 year planning window
  - Using weighted average cost = \$3,513

$$FV = C * [(1+i)^n - 1] / i$$

Where: C = cash flow per period

i = interest rate

n = number of payments

$$\text{So: } FV = \$665 * [(1+0.0275)^5 - 1] / 0.0275 = \$3,513$$

- Total cost is \$1,922 + \$3,513 = \$5,435 AF

# Sample Calculation for Single Family Residential Development

- Annual Consumption Factor = 2.23 ac ft/ac/yr
- Calculated Cost AF = \$5,435
- Supplemental Water Supply Fee (SWSF)  
 $2.23 \times \$5,435 = \$12,120$  per acre
- Assume density of 5 dwelling units per acre, cost per house = **\$2,424**

# Supplemental Water Supply Fee (SWSF) by Development Type

| IWA Development Type                                   | Annual Consumption Factor with Return Flows (ac-ft/ac/yr) | SWSF (\$/acre) |
|--|---|----------------|
| Commercial/Institutional                               | .65   | \$3,533        |
| Hotel/Motel  | 1.42  | \$7,718        |
| Industrial   | .93   | \$5,055        |
| Irrigation   | 1.54  | \$8,370        |
| Multi Family Residential                               | 1.23  | \$6,685        |
| Single Family Residential                              | 2.23  | \$12,120       |
| City Parks/Irrigation and Landscape Lighting Districts | 1.36  | \$7,392        |

# CVWD/IWA Comparison

| IWA Development Type                                   | IWA fee                                       | CVWD fee                                      |
|--|---|---|
| Commercial/Institutional                               | \$3,533                                       | \$2,800-\$20,574                              |
| Hotel/Motel  | \$7,718                                       | \$18,035                                      |
| Industrial   | \$5,055                                       | \$2,800-\$20,574                              |
| Irrigation   | Based on landscape architect calculated usage | Based on landscape architect calculated usage |
| Multi Family Residential                               | \$6,685                                       | \$11,742                                      |
| Single Family Residential                              | \$12,120                                      | \$12,218                                      |
| City Parks/Irrigation and Landscape Lighting Districts | \$7,392                                       | \$13,011                                      |



# Implementation



- Program effective March 1, 2013
- Any Project that has pulled a building permit and paid water impact fees prior to March 1, 2013 will be exempt
- Development Agreements with defined water fee requirements may be exempt – reviewed on a case by case basis
- Developer may apply for in lieu mitigation measures that may apply as credit against the Supplemental Water Supply Fee (SWSF)
- SWSF due at Building Permit issuance after March 1, 2013

# Questions