



## Colorado's Water Supply Future



# South Platte Roundtable

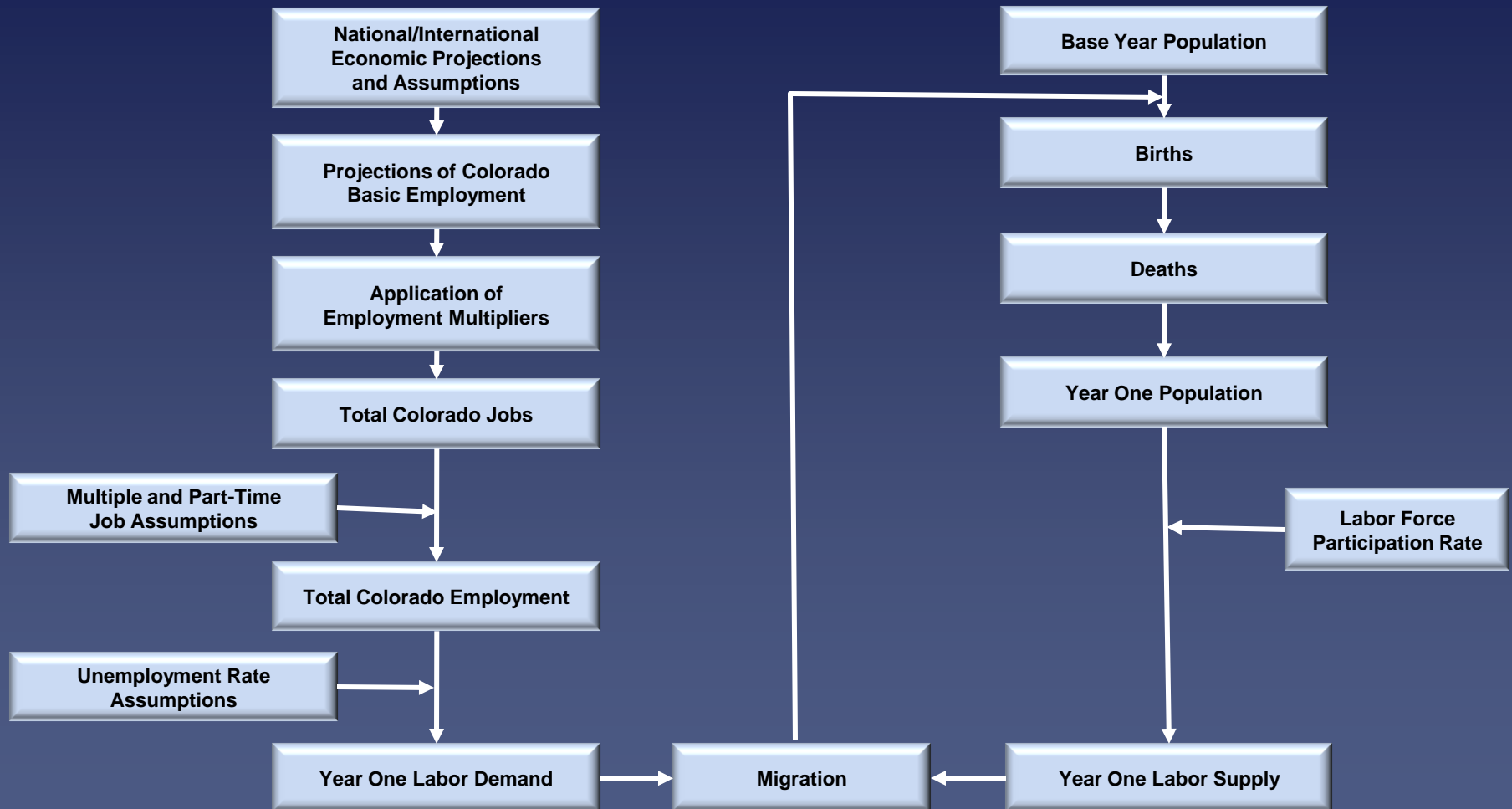
December 9, 2008

Statewide M&I Demands to 2050

# Overview – M&I Water Demands to 2050

- Population
  - 2035 population projection from Colorado State Demographer's Office (SDO)
  - 2050 population project using SDO's methodology
- Demands
  - Updating Statewide Water Supply Initiative (SWSI) gallon per capita per day (gpcd) values
  - Projecting water demands at 2035 and 2050

# Population Projection Methodology – Center for Business and Economic Forecasting (CBEF) and SDO's Model



Note: CBEF uses employment commuting pattern assumptions and historical growth capture rates to allocate job growth from the state to regions and counties.

# Colorado's Basic Employment Sectors

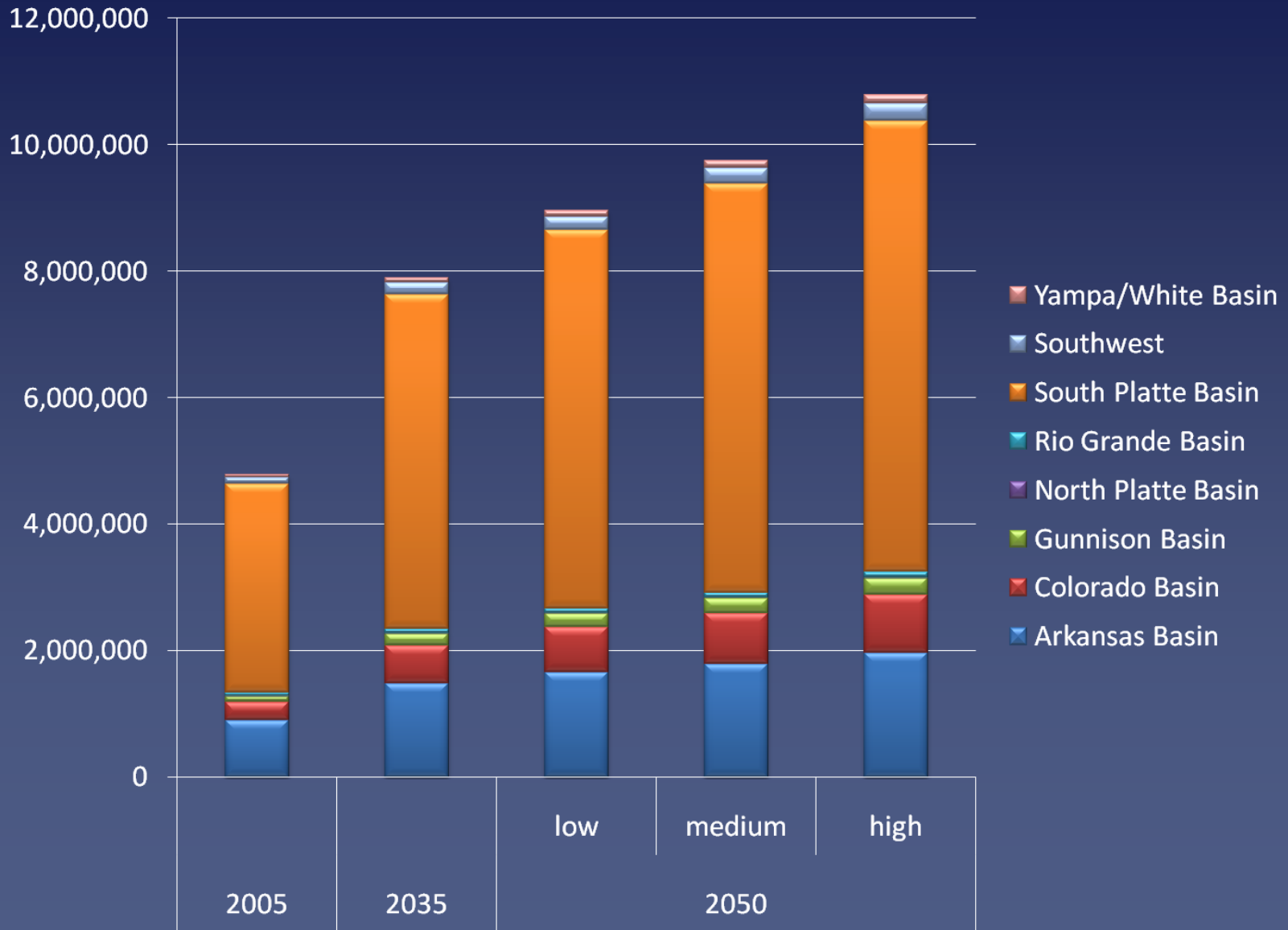
## **Traditional Basic Sectors**

- Agriculture
- Government
- Mining
- Manufacturing
- Regional and National Services
- Tourism

## **Household Basic Sectors**

- Retirees
- Wealth & Income
- Public Assistance
- Commuting/Employment

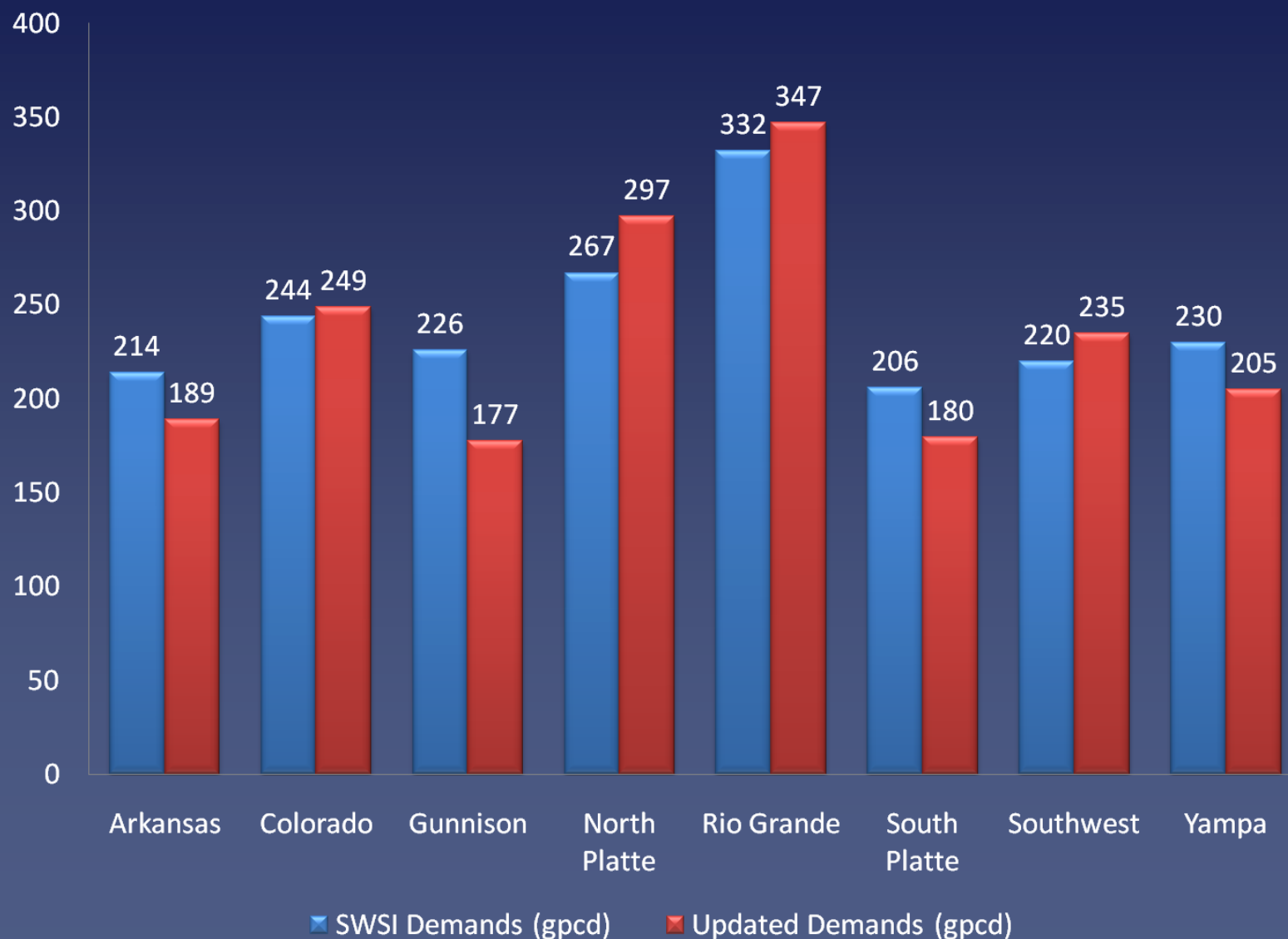
# Population Projections



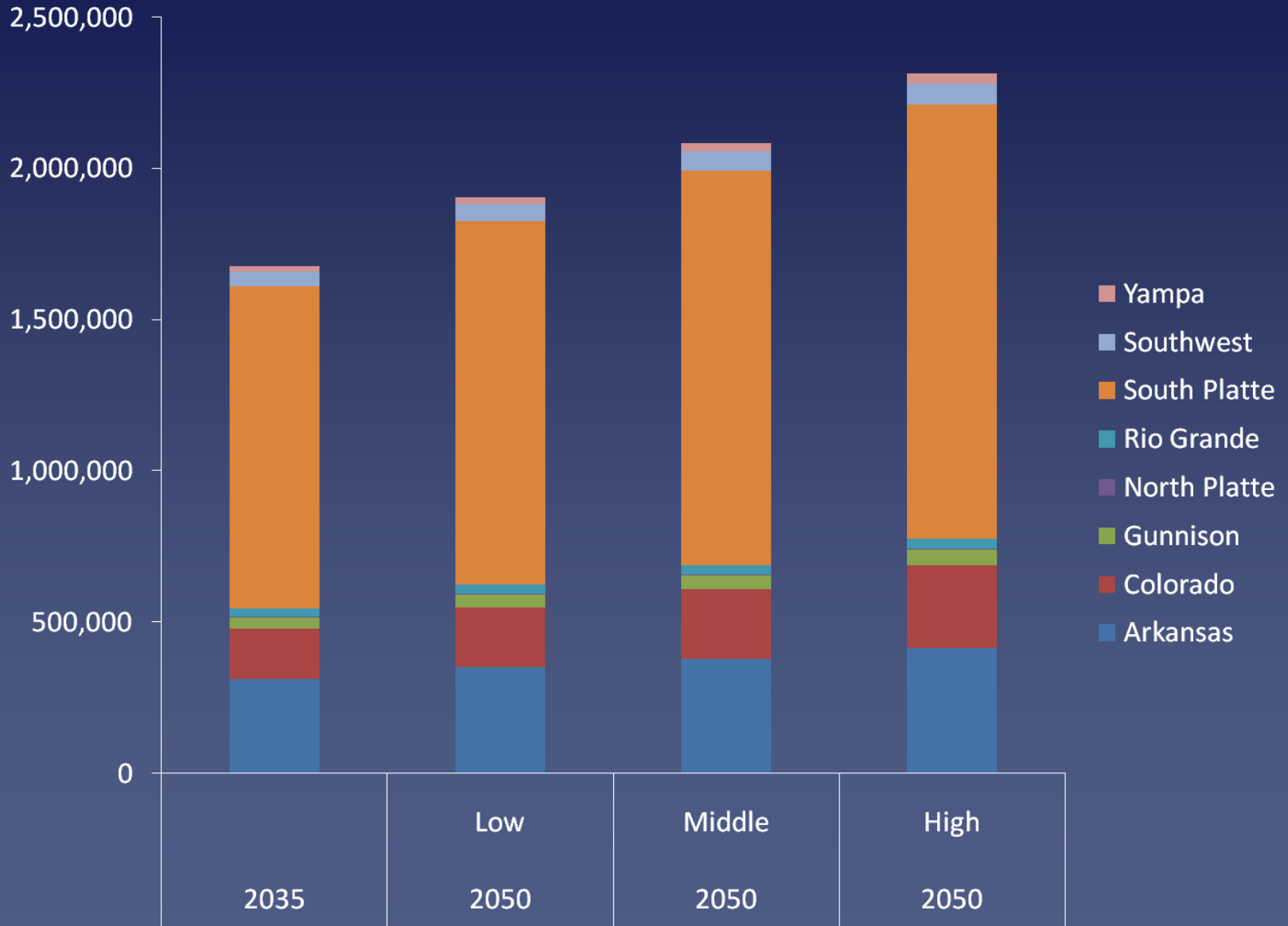
# M&I Water Demand Methodology

- Used SWSI Methodology
- SWSI Database was updated with recent demand data
- Added additional 35 providers to database
- Updated per capita estimates collected for 149 providers covering 73 percent of Colorado's population

# M&I Water Usage Rates by Basin

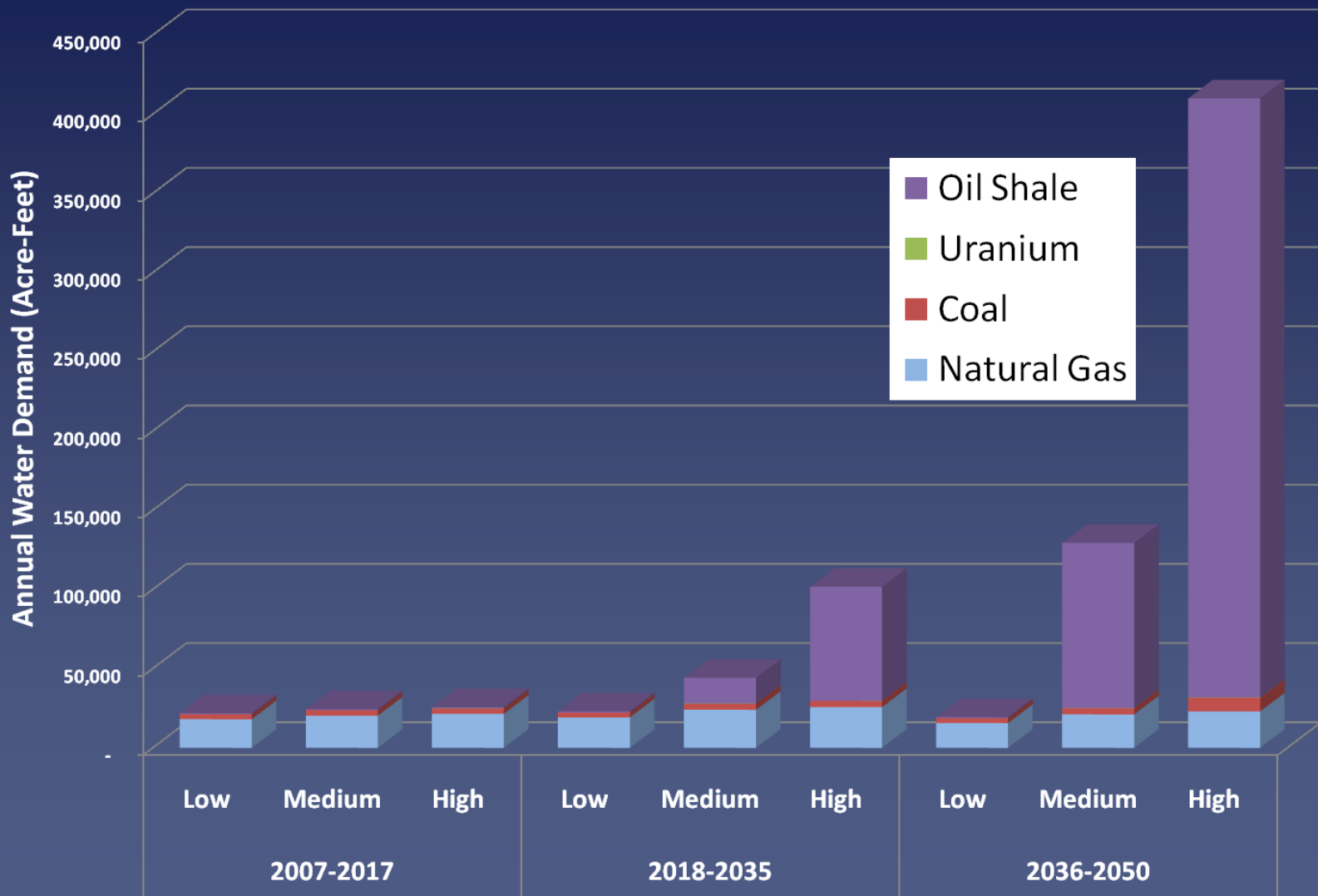


# Municipal Water Demands by Basin

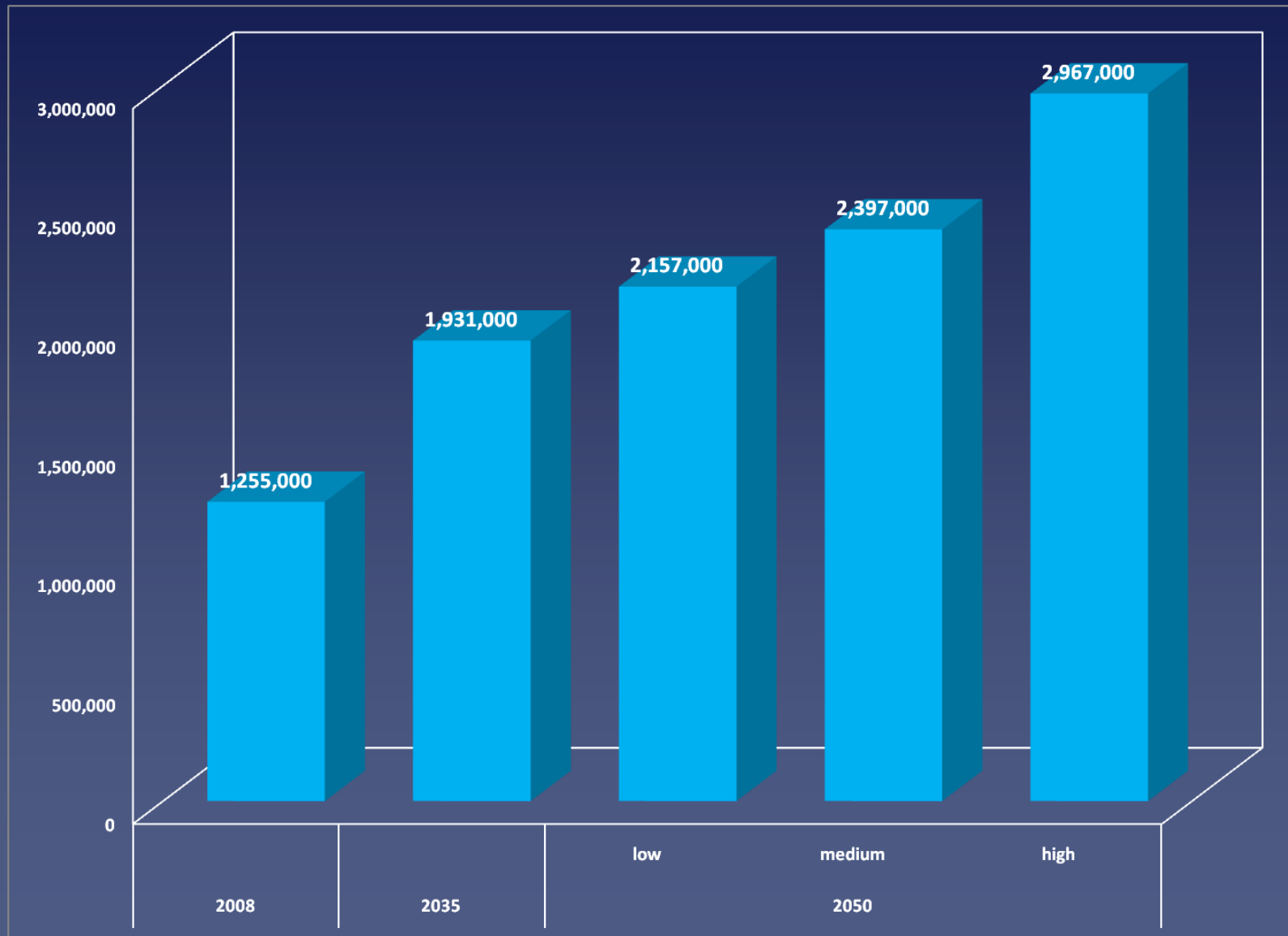




# Colorado and Yampa/White Energy Demands



# By 2050, Colorado will need up to 1.7 MAF to meet M&I demands\*



\*This does not take into account demand reductions from conservation for future demands 10

	POPULATION PROJECTIONS				
	2008	2035	2050	2050	2050
Basin			Low	Middle	High
Arkansas Basin	963,765	1,477,482	1,662,295	1,787,188	1,967,475
Colorado Basin	310,163	601,076	709,266	802,418	916,671
Dolores / San Juan Basin	106,725	187,877	210,675	240,396	269,569
Gunnison Basin	105,821	191,654	222,692	243,235	267,969
North Platte Basin	1,580	1,947	2,123	2,356	2,774
Rio Grande Basin	50,396	67,495	74,321	80,036	88,502
South Platte Basin	3,459,827	5,293,403	5,978,460	6,474,818	7,137,991
Yampa Basin	44,463	77,972	97,405	115,455	138,529
All Basins	5,042,741	7,898,907	8,957,237	9,745,903	10,789,481

	M&I WATER DEMAND (AF)				
	2008	2035	2050	2050	2050
Basin			Low	Middle	High
Arkansas Basin	205,299	312,982	351,454	377,821	415,975
Colorado Basin	89,522	167,506	198,607	232,327	271,850
Dolores / San Juan Basin	28,162	49,383	55,034	63,158	71,075
Gunnison Basin	21,128	38,094	44,086	48,324	53,328
North Platte Basin	526	648	706	784	923
Rio Grande Basin	19,874	26,220	28,682	30,791	33,944
South Platte Basin	692,518	1,064,666	1,204,175	1,302,719	1,435,072
Yampa Basin	10,346	17,890	22,385	26,906	32,820
All Basins	1,067,375	1,677,389	1,905,130	2,082,831	2,314,987

# Next Steps

- Discuss Municipal and Industrial results with Basin Roundtables
- Discussion regarding how much of current demand reductions are technical vs. behavioral
- Conservation reductions for demands
- Incorporate into conservation strategy
- Project climate change impacts on demands
- Estimate agricultural demands at 2050