Scenario Summaries

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1) Business as Usual

Recent trends continue into the future. Few unanticipated events occur. The economy goes through regular economic cycles but grows over time. By 2050 Colorado's population is close to 9 million people. Single-family homes dominate, but there is a slow increase in compact development in large urban areas. Social values and regulations hold steady, but stream flows and water supplies show increased stress. Regulations are not well coordinated and create increasing uncertainty for local planners and water managers. Willingness to pay for social and environmental mitigation of new water development slowly increases. Municipal water conservation efforts slowly increase. Oil shale continues to be researched as an option. Large portions of agriculture land around cities are developed by 2050. Transfer of water from agriculture to urban uses continues. Efforts to mitigate the impacts of the transfers slowly increase. Agricultural economics continue to be viable but agricultural water use continues to decline. The climate is similar to the 20th century.

2) Weak Economy

The world's economy struggles, and the state's economy is slow to improve. Population growth is lower than currently projected, slowing the conversion of agricultural land to housing. Maintaining infrastructure, including water facilities, becomes difficult. Many sectors of the state's economy begin to struggle financially, including most users of water and water-dependent businesses. There is little change in social values, levels of water conservation, urban land use patterns, and environmental regulations. Regulations are not well coordinated and create increasing uncertainty for local planners and water managers. Willingness to pay for social and environmental mitigation decreases due to economic concerns. Greenhouse gas emissions do not grow as much as currently projected.

3) Cooperative Growth

Environmental stewardship becomes the norm. Broad alliances form to provide for more integrated and efficient planning and development. Population growth occurs consistent with current forecasts. Mass transportation planning concentrates more development into urban centers and mountain resort communities, thereby slowing the loss of agricultural land and reducing the strain on natural resources compared to traditional development. Coloradans embrace water and energy conservation. New water saving technologies emerge. Eco-tourism thrives. Water development regulations are more restrictive and require high water-use efficiency along with environmental and recreational benefits. Environmental regulations are more protective and include efforts to re-operate water supply projects to reduce impacts. Demand for more water-efficient foods reduces water use. There is a moderate warming of the climate, which results in increased water use in all sectors, threatening stream flows and supplies. This dynamic reinforces the social value of wide-spread water efficiency and increased environmental protection.

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4) Adaptive Innovation

A hotter climate causes major environmental problems globally and locally. Social attitudes shift to a shared responsibility to address problems. Technological innovation becomes the dominant solution. Strong investments in research lead to breakthrough efficiencies in the use of natural resources including water. Renewable and clean energy become dominant. Colorado is a research hub and has a strong economy. The relatively cooler weather in Colorado (due to its higher elevation) and high tech job market causes population to grow faster than currently projected. The warmer climate increases demand for irrigation water in agriculture and municipal uses. Stream flows and water supplies decline. The regulations are well defined and permitting outcomes are predictable and expedited. More food is bought locally increasing local food prices and reducing the loss of agricultural land to urban development. The environment declines and shifts to warmer weather species. Droughts and floods become more extreme. More compact urban development occurs through innovation in mass transit. The warmer climate reduces global food production increasing the market for local agriculture and increasing food imports to the state.

5) Hot Growth

A vibrant economy fuels population growth and development throughout the state. Regulations are relaxed in favor of flexibility to promote and pursue business development. A much warmer climate also brings more people to Colorado with its relatively cooler climate. Families prefer low-density housing and many seek rural properties, ranchettes, and mountain living. Agricultural and other open lands are rapidly developed. A hotter climate decreases global food production. Worldwide demand for agricultural products rises, greatly increasing food prices. Stream flows and water supplies decline. The environment degrades and shifts to warmer weather species. Droughts and floods become more extreme. Communities struggle unilaterally to provide the services needed for the rapid business and population growth. Fossil fuel is the dominate energy source, and there is large production of shale oil, coal, natural gas, and oil in the state.

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