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Session Notes

**Troubled Waters: The Mounting Water Crisis in the American West**

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David Kennedy

Many things define the West, but the single most defining characteristic is the arid climate. Less than 20 inches of rain fall every year in this part of the country. Settlers were warned, “Things are different west of the 100th meridian.”

Another defining characteristic is the degree to which the federal government owns land in the West. The U.S. government is the principal owner of land west of the 100th meridian, owing more than 90 percent of land in Nevada and 50 percent in California.

The 100th meridian is not only a geographic line, but a line “in time.” Prior to the 1870s, the growth plan in the United States was one of distribution of land to the settlers. During the next 100 years, the plan changed from distribution to maintenance. The goal became scientific development of the West, in which science was used to help develop the region. There was a tremendous investment in infrastructure projects to make lands livable. Some examples are the U.S. Geological Survey’s work and dams. Large growth occurred in the West only after the investment in infrastructure was complete.

Since the 1970s, the plan has changed again, to management of existing lands. There have been no more serious investments in infrastructure.

The availability of water in the West has been the single most important factor in growth. And now we are running out. The federal government shaped the growth of the West by making it habitable through water projects, dams that provide both irrigation and hydroelectric power. More than 80 percent of engineered water in the West goes toward agricultural use. Twenty-five percent of this water goes to California.

Not all of this infrastructure has been environmentally sound.

Buzz Thompson

In the old days, we solved the lack of water problem by taking water from somewhere else: The Owens Valley and the Colorado River feed Los Angeles, for example. But the problem is that this is not a sustainable practice. It can’t go on forever.

So what do we do?

First, we can manage demand. We are doing a pretty good job of this in the United States today, mainly because of agricultural gains in conservation. But urban areas are not keeping up with conservation efforts. We need to look at pricing to discourage misuse, such as charging according to amount used rather than with a blanket fee.

Second, we can increase flexibility. We can create “water markets” as an incentive to conserve. Water markets can move water from agricultural areas to urban areas. But these markets have their issues. Conservation in one area will impact other areas—for example, conservation in the Imperial Valley has harmed the Salton Sea, as limited runoff has lowered the sea level.

Third, we can stretch existing supplies with dams and reservoirs. But it is now very, very difficult to get these approved, funded and built. A new solution may be to use existing underground aquifers that have been depleted by the increased use of wells.

A fourth alternative is to expand the supply. Desalination is a growing alternative, and its costs are declining. Many question, however, if its costs will continue to decline. Recycling water is another option. Waste water is great for landscaping and agricultural uses. It can also increase usage opportunities, including drinking, with heightened levels of waste treatment. Orange County and Singapore are recycling water.