SNOW FALLS ON A SINKING CITY

On a gray February afternoon, a miserable mix of rain and damp snow is tumbling out of gray clouds in Tucson, Arizona, as Brad Lancaster stands in front of his home, welcoming every ice-cold drop. *"This is what we live for here," he says, raising both hands, palm upward. "I am loving it."*

It never snows in Tucson. It doesn't even rain much, about 11 inches a year, so precipitation of any kind makes Tucsonans a little giddy. But the light in Lancaster's eyes is different. He sees water falling from the sky as the key to his city's future, nothing less than its salvation.

To understand why, you have to understand a little known fact about today's world: much of it is running out of fresh water.

Seen from space, the earth may be the deep blue of the sea, a water planet, seven-tenths covered by oceans. But only three percent of the earth's water is freshwater, and most of that is locked up in glaciers or the ice caps. Less than one percent is usable freshwater. +

From the American Southwest to the Middle East to China, the human race is drawing down the freshwater supply far faster than nature can replenish it.

TUCSON, ARIZONA

Tucson stands as a stark example of the problem. The city sits in a high valley in the Sonoran Desert, nestled between four mountain ranges, the Catalinas, Rincons, Santa Ritas and Tucsons. With more than a million residents, and like much of the U.S. urban Sunbelt, the metropolitan area has exploded in population, more than tripling in size since 1960. On a bright day with the glass towers of downtown reflecting the perfect blue sky and razor-edged mountains, it's easy to see the allure. Tucson glimmers like a mirage of the sun-filled Southwestern lifestyle.

But that lifestyle is built on sand. For more than 100 years, Tucson has been pumping water out of the aquifer beneath it faster than the water has been replenished. The city has sucked up so much of its groundwater that parts of Tucson and the surrounding area are literally sinking, some spots as much as 12 feet. Subsidence has cracked foundations and shifted walls as a thirsty city has drilled ever deeper into the ground in search of freshwater. +

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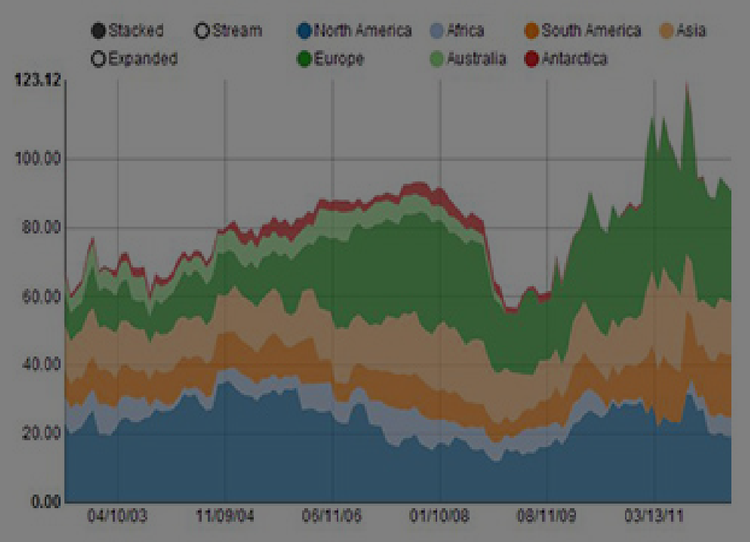

A SINKING AQUIFER

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Yet if Tucson stands a
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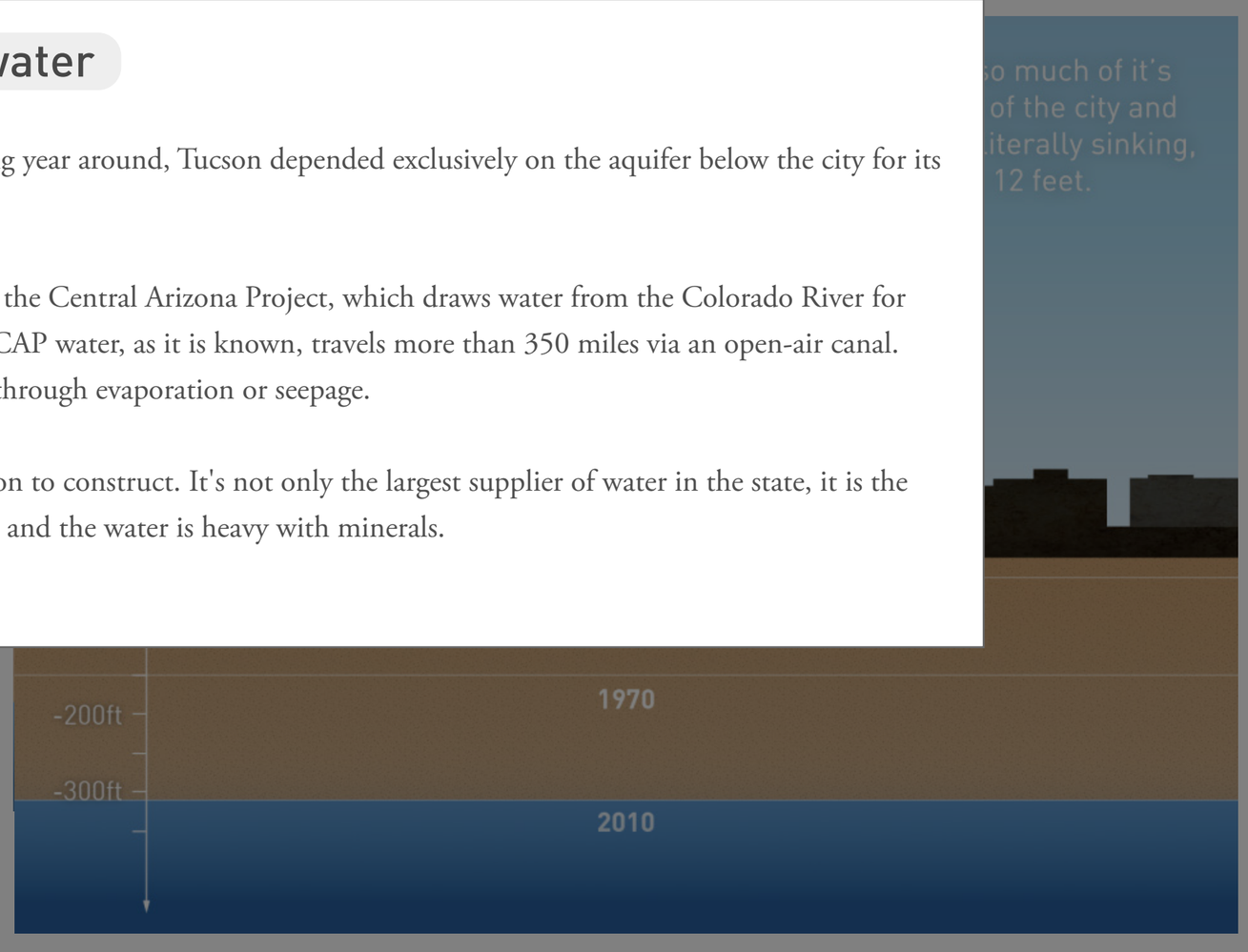
region's long history of habitation possible.
Can the old world really save the new? The man standing in the snow like a slightly mad prophet is determined it can.

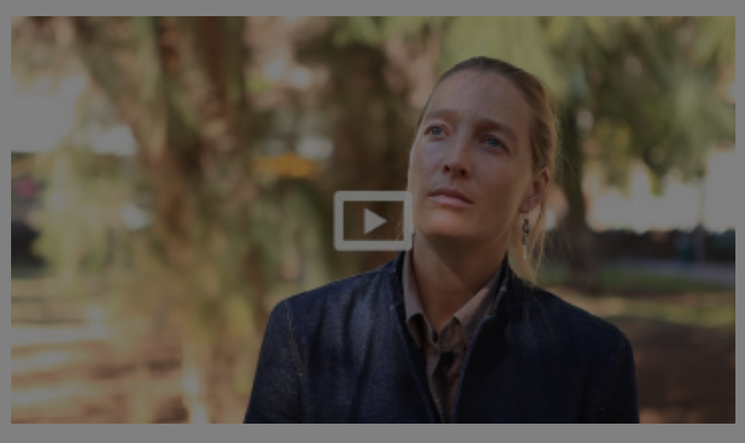


+ In search of freshwater

Once the Santa Cruz stopped flowing year around, Tucson depended exclusively on the aquifer below the city for its water until the 1990s.

Since then, it has been connected to the Central Arizona Project, which draws water from the Colorado River for much of Arizona. To reach Tucson, CAP water, as it is known, travels more than 350 miles via an open-air canal. About 5 percent of the water is lost through evaporation or seepage.

The project originally cost $3.6 billion to construct. It's not only the largest supplier of water in the state, it is the biggest user of electricity in Arizona, and the water is heavy with minerals.



"By 2025, if people continue to live the way they are, I don't think we can support it, and if growth continues as it has, I don't think we can support that many people in the city of Tucson or the Santa Cruz River Valley," says Rafael de Grenade, director of the Tucson Oasis Initiative. ***"We're reaching a tipping point."***