



Level 6B: Defeat Day Zero, Part 2

In March this column focused on the epic drought in Cape Town, South Africa. At that time, Day Zero—the day water service would be shut off—was imminent and inevitable. Now Day Zero has been postponed to 2019.

To many of us, the length of the postponement seems unbelievable—how could something so dire suddenly be delayed for so long? Wondering about this, I had the good fortune of connecting with some of Cape Town’s governmental water leaders, who were kind enough to answer my many questions. Here is what I have learned.

The drought is still in full force. The postponement of Day Zero in no way means Cape Town is out of its drought. This is the third year of the drought, and right now what are referred to as Level 6B water restrictions are in place. These restrictions limit Capetonians to only 50 L (13 gal) of water per person per day for all uses—drinking, cooking, flushing, showers, pets, etc. This minimal daily amount is hard for many of us to imagine.

At least three drivers led to the postponement of Day Zero. First, the urban reduction in water consumption was significant. Second, the city’s water supply is shared with agricultural users, and for three of them, the supply was capped, making that water available for residents. Third, a neighbor, the Groenland Water Users Association, released 10 billion L of its supply to Cape Town.

The biggest bet in postponing Day Zero is the expectation that, because Cape Town is now entering its rainy season (roughly April through September), rain will provide some relief. While models show that with absolutely no rain, Day Zero will occur in mid-July 2018, the assumption of no rain is deemed unrealistic if not irresponsible. Projections for Day Zero now use conservative and reasonable estimates of rainfall, augmentation, evaporation, and low water usage. If these assumptions pan out, the models predict that Cape Town can keep its reservoirs above 13.5% of capacity—the trigger for Day Zero—and get close to mid-year 2019 and the next rainy season.

Along the way, Cape Town officials have made some key public policy decisions. The first is to communicate with transparency. For example, in March I mentioned their fantastic website, but their Twitter feeds and Facebook page are equally informative. Their transparent decision-making extends to the bold choice to trust the data and announce—but not promise—Cape Town can get to 2019.

Also, city officials have used two tactics that I think some other communities would think twice about; but, speaking candidly, desperate times call for desperate

measures. The first was to lower the water pressure in the city’s system. This slowed the flow of water and helped reduce usage, but not without periods of no water in some areas. They also used GIS mapping technology to plot household usage for their customers. This allows customers to check on their consumption, as well as that of their neighbors, to see who is complying with the restrictions.

This historic drought—some conclude it is a one-in-a-thousand-year event—also raises several environmental, social, and economic issues. Environmentally, experts are attributing the severity of the drought to climate change. Socially, the economic spectrum of Cape Town is significantly broad, and the drought has raised concerns about water equity, especially for those living in “informal communities.” Informal communities are inhabited by disadvantaged citizens who live in shack-type dwellings and get their water from a standpipe. Finally, tourism is important to Cape Town’s economy. The drought has reduced the demand to visit Cape Town, and this has wide-ranging economic consequences.

The media also have been fickle. Perhaps you have seen photos of Capetonians standing in line to fill water jugs. This creates the false impression that the long lines are because tap water has been turned off. The reality is, these citizens are filling their jugs at natural springs. The water demand has increased at these springs, but taps have not been shut off because Day Zero has not occurred. Sadly, it seems to me, the announcement that Day Zero is delayed removed the media’s urgency to report on this important water story, which in turn contributes to the misperception that the drought is over.

Cape Town is operating on a slim water margin—there is no debate about it. Impressively, the water leaders are trusting the data projection and using the results to make brave strategic decisions for their community. They are far from being out of the woods, they are balancing many complicated community policies, and they are counting on the assistance of Mother Nature. Let’s all hope for rain.

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