

Michael Hanemann

San Diego County LAFCO Ad Hoc Advisory Committee

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Self-introduction

- I am an economist working in the field known as environmental and resource economics, focusing on economic valuation and the economics of water, of pollution and of climate change.
- Professor at UC Berkeley, Department of Agricultural & Resource Economics and Goldman School of Public Policy, 1976 – 2011.
 - Created and directed UC Berkeley's Climate Change Center (2003-2010)
 - Now Emeritus Professor at UC Berkeley, still doing research with grad students
- Came to Arizona State University, Tempe as Professor of Economics and Endowed Chair in the School of Sustainability in 2011.
 - Director, Center for Environmental Economics & Sustainability Policy
 - Teaching undergrads and grads and doing research with grad students and a post-doc
- BA in Philosophy, Politics and Economics, Oxford University (1965); M.Sc. In Economics, London School of Economics (1967); Ph.D in Economics, Harvard University (1978).

- In 2011 I was elected a member of the US National Academy of Sciences.
- I have received honorary doctorates in Sweden and Spain, am a distinguished Fellow of three international professional economic associations, and have received various awards for my research.
- Served as California SWRCB Economic Staff for San Joaquin River Water Quality Regulation (1986-1987), Bay-Delta Hearings (1987-1990) and Mono Lake Decision (1991-1993). Technical Advisor LADWP Blue Ribbon Committee 1992-95 (designed LADWP's water rates). Consultant to MWD Blue Ribbon Committee on water rates and finance, 1993. Consultant on water rate design California Urban Water Conservation Council (1992-97). Member CALFED Urban Drinking water advisory committee (2002-05) and Finance Advisory Panel (2004-05). Consultant Imperial Irrigation District for shortage allocation (2005-06). Consultant El Dorado ID on drought management, 2007-09. Co-organizer ASU-AWWA Urban Water Demand Roundtable, 2013, 2015, 2016, 2019.
 - US National Research Council Glen Canyon Dam Review Committee, US EPA Science Advisory Board, Government of Malaysia, Murray-Darling Basin Authority, California Climate Change Assessment, Fifth IPCC, European Union Climate Change Assessment.
- Expert witness for Golden State Water (2015-2016) and Liberty Utilities (2019-2020) water utility eminent domain cases (Claremont, Apple Valley).

My assigned topics

1. Water Rate Impacts
2. Water Supply Reliability
3. Potential Departure Fees

Role of the Ad Hoc Advisory Committee

- I benefited from working with an Advisory Committee of stakeholders like yourselves when working for the California SWRCB on the regulation of salt/selenium discharges to the San Joaquin River (1985-86) and for Imperial Irrigation District on the allocation of Colorado River water to water users during periods of shortage (2005-06).
- At each of our meetings, I will tell you (i) what I have done since we last met, and what I think I have learned since then or am inclined to conclude, and (ii) what I propose to do, and how, between now and our next meeting.
- I would like you to point out sources of information, act as a sounding board, provide advice, and offer feedback.
 - This includes weighing in on what are reasonable assumptions and related scoping/scaling issues.

Preserving the record

- I will rely on information in the record as provided by LAFCO and posted online.
- I am open to receiving additional records, with the understanding that they should be submitted to me via LAFCO staff and not directly.
- I may wish to add some items to the record, with the understanding that I will submit them to LAFCO staff and receive their permission first.
- At some points, I will request a “quiet period” during which no additional items would be added to the record while I digest and analyze the material already posted.
 - I will then report back to you, and the quiet period will have ended.
- All of our interactions – you with me, me with you -- should be through the LAFCO staff.
 - No direct communication between us.

Next steps

1. Water Rate Impacts
2. Water Supply Reliability
3. Potential Departure Fees

Suggested sequence

- Start with Topic Two – Supply Reliability
 - This way, I can become familiar with the supply systems and demand projections for RMWD, FPUD, SDCWA and EMWD
- Then Topic One
 - Focus on system costs and finances
- Then Topic Three

Topic Two: Water Supply Reliability

- What is the reliability of MWD's supply?
- What is the reliability of SDCWA's supply
- What is the reliability of EMWD's supply?
- What is the reliability of FPUD's and RMWD's supplies?
- Would these change if the reorganization proceeds?
- If so:
 - In what ways?
 - What would the change in reliability entail?
 - Are there ways to mitigate the change in reliability?
- Notes:
 - Supply reliability is measured in relation to projected demand.
 - There are several potential metrics of supply reliability.
 - What is the time horizon?

Topic two, continued

Sources of information currently available to me:

- Materials on the SD LAFCO Reorganization web page
- Materials on the SDCWA Response web page (9/18/20)
- Materials on Nossaman LLP Supplemental Materials web page (not accessible)
- 2010 and 2015 Urban Water Management Plans for MWD, SDCWA, FPUD, RMWD, and EMWD.
 - Would it be possible for me to obtain access to the draft 2020 UWMPs, subject to my treating them as confidential until the final drafts are made public in July 2021?

Suggestion for next steps

- I focus on Topic Two, Water Supply Reliability
- You submit any additional materials over the next ~10 days
- I then review and digest the information
- I report back a month from now with an analysis plan for assessing supply reliability and receive feedback.
- There is then a quiet period of about six (?) weeks, at the end of which I produce a draft assessment which is circulated to you.
- We then discuss this draft at a following Ad Hoc Advisory Committee meeting.