

TRANSCRIPT OF KEYNOTE SPEAKER'S SPEECH

KEN ALEX

Thank you for inviting me to speak today.¹ I worked for twenty-five years in the Attorney General's Office in California,² and I probably would not have left except that Jerry Brown was elected to his third and potentially fourth term as governor.³ One of the great things about the Attorney General's Office was the chance to work with interns or externs. To see Professor Barbara Cosens, as well as other former externs around the country, and even around the world, really doing great things is perhaps one of the most rewarding parts of the job.

The Symposium has been fascinating, hearing different approaches and different perspectives on the concept of resilience and resilient cities. I want to put it in perhaps a little different context: In 2014, over 50% of the world's population now lives in cities, and by 2050, that will be over 75%.⁴ That is, I would say, the source of both promise and, potentially, horror.

There are many different kinds of cities with different kinds of structure resulting in different forms of potential resilience. New York City after Hurricane Sandy, for example, has a really different sense of resilience and response⁵ than, say, the Philippines after last year's typhoon. As a result of these profound differences, there are very disparate notions of how cities survive and reconstitute themselves. And, of course, rural areas⁶ are different altogether. We should remember that cities are tied directly to areas outside cities, and that city resilience is often tied to those areas.

Just as an example, if you think about how you get electricity, the basic commodity of operating a city, it is primarily not an urban concept.

1. Mr. Alex utilizes a PowerPoint presentation to enhance his speech; to see a video of his speech that includes the PowerPoint presentation, see U-Idaho College of Law, *Keynote with Ken Alex on Vimeo*, VIMEO (Apr. 4, 2014), <http://vimeo.com/92067906>.

2. THE GOV'T OFF. OF PLANNING & RESEARCH, *Office of Planning and Research – OPR Director*, CA.GOV, http://opr.ca.gov/s_director.php (last visited May 22, 2014).

3. *Id.*; see also Catalina Camia, *California Gov. Jerry Brown Formally Declares Re-election Bid*, USA TODAY (Feb. 27, 2014, 4:34 PM), onpolitics.usatoday.com/2014/02/27/jerry-brown-california-governor-re-election/.

4. See *Why Global Cities?*, GLOBAL CITIES, www.globalcities.eu/why-global-cities.php (last visited May 22, 2014); see also GLOBAL HEALTH OBSERVATORY, *Urban Population Growth*, WHO, http://www.who.int/gho/urban_health/situation_trends/urban_population_growth_text/en/ (last visited May 22, 2014).

5. See, e.g., LINDA GIBBS & CASWELL HOLLOWAY, *HURRICANE SANDY AFTER ACTION: REPORT AND RECOMMENDATION TO MAYOR MICHAEL R. BLOOMBERG* (May 2013), available at http://www.nyc.gov/html/recovery/downloads/pdf/sandy_aar_5.2.13.pdf.

6. See, e.g., Andrew Jacobs, *Relief Supplies Pour into Philippines, but Remote Areas Still Suffer*, N.Y. TIMES, Nov. 17, 2013, at A10, available at <http://www.nytimes.com/2013/11/17/world/asia/relief-supplies-pour-into-philippines-but-remote-areas-still-suffer.html>.

And our model for energy generation is quite a bit different from much of the rest of the world. There are 7 billion or so people in the world.⁷ Three point one billion people, 3 out of 7 people in the world, do their cooking and heating over an open flame, indoors with char and wood.⁸ Six hundred million households. I find that to be incredibly humbling. A lot of those households are outside cities⁹ but not exclusively. Think, for example of some of the slums in Indian cities.¹⁰ Right now, 65% of India is still rural, but that's changing.¹¹ Poverty, open flame cooking and heating, and the great migration to the city have many implications for how we think about resilience.

My frame of reference is primarily California. Let me quickly go through the usual set of plagues for California. One thing that we can say about resilience and sustainability, in addition to it being circumstantial (different cities, different countries, and different areas have different notions of what it is and what it should be), but one thing that we've already talked about this morning, and I'm sure for the rest of the day, and for the rest of your lives, is that climate change is a driving issue for all of us in the 21st century.¹²

Here is the California parade of climate horrors in the state. First, is the loss of snow pack. It is really a big deal in California. It is probably a little bit less so in Idaho because winter temperatures are colder. California's snow pack, which is about 33% of our water supply,¹³ is greatly at risk, with estimates of a loss of up to 90% by the end of the century.¹⁴ This year appears to be a precursor with the drought in California.¹⁵ It is quite frightening. In addition there is earlier snow-

7. *The World at 7 Billion*, UNITED NATIONS POPULATION FUND, <http://www.unfpa.org/public/home/7Billion> (last visited May 22, 2014).

8. *See Energy Overview*, WORLD BANK (Mar. 25, 2014), <http://www.worldbank.org/en/topic/energy/overview>; *see also* WHO, FUEL FOR LIFE: HOUSEHOLD ENERGY AND HEALTH 4 (2006) [hereinafter FUEL FOR LIFE], *available at* www.who.int/indoorair/publications/fuelforlife.pdf.

9. *See generally* FUEL FOR LIFE, *supra* note 8.

10. *India: Launch of Mumbai Slum Electrification Project*, GLOBAL PARTNERSHIP ON OUTPUT-BASED AID, <https://www.gpoba.org/node/380> (last visited May 22, 2014).

11. *Rural Population (% of total population)*, WORLD BANK, <http://data.worldbank.org/indicator/SP.RUR.TOTL.ZS> (last visited May 22, 2014) (India is listed with 68% rural population).

12. *See, e.g.*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *Emissions Scenarios*, IPCC, <http://www.ipcc.ch/ipccreports/sres/emission/index.php?idp=501> (last visited May 22, 2014); *The "War" In Global Warming*, DISH (Apr. 23, 2014, 11:20 AM), <http://dish.andrewsullivan.com/2014/04/23/the-war-in-global-warming>.

13. UNION OF CONCERNED SCIENTISTS, GLOBAL WARMING AND CALIFORNIA'S WATER SUPPLY, *available at* http://www.ucsusa.org/assets/documents/global_warming/ucs-ca-water.pdf (last visited May 22, 2014).

14. *See id.* (stating that increased temperature could decrease "the spring snowpack in the Sierra Nevada by as much as 90 percent").

15. Ari Phillips, *California Researchers Find Drastically Low Snowpack, Spelling Danger For 2014 Water Supplies*, CLIMATE PROGRESS (Jan. 4, 2014, 1:17 PM), <http://thinkprogress.org/climate/2014/01/04/3119631/california-snowpack-20-percent-normal/>.

melt.¹⁶ Our reservoir system and our runoff system are designed for late spring melt,¹⁷ which is now occurring earlier, and not for the precipitation that now seems to come in heavier doses.¹⁸

Other climate change impacts in California include heat and heat related effects, extended fire season and larger fires, sea level rise and insect-borne diseases. In thinking about resilience in California and what to do about it, particularly in the context of climate change, we are focusing a good deal on basic responses to climate change itself. How do we reduce greenhouse gas emissions? How do we mitigate the impacts of greenhouse emissions? California has a renewable portfolio standard, which requires 33% of all power generated in California to come from renewable sources by 2020.¹⁹ We are well on our way to that goal,²⁰ and will likely exceed it. We have a cap-and-trade system,²¹ which so far is actually working to the surprise of many, perhaps including me.

We are now starting to think: how do we deal with greenhouse gas emission reductions when it gets more difficult? After 2020, how do we reduce further: 2030, 2040, and 2050? California just issued a draft report, called “Safeguarding California”, which is about this topic: adaptation and resilience in California.²² The draft is 373 pages long, so part of my job is to ensure that the next version is about half that length.

Those are the large-scale approaches to climate change in California. I want to talk about some of the other things that we are doing that probably go under the radar, and yet I think will potentially have a bigger impact over time. My office, the Office of Planning and Research,²³ is responsible for general plan guidelines.²⁴ The relationship of law to resilience is very basic. General plans are the “constitution” for local juris-

16. UNION OF CONCERNED SCIENTISTS, *supra* note 13.

17. *See Drought 2014: What You Need To Know*, SAVE OUR WATER, <http://www.saveourh2o.org/content/Drought2014WhatYouNeedtoKnow> (last visited May 22, 2014). (stating that as a result of earlier spring runoffs “water managers are worried about the ability of California’s network of water storage and delivery systems to meet all of the needs of the state.”).

18. UNION OF CONCERNED SCIENTISTS, *supra* note 13.

19. *California Renewables Portfolio Standard (RPS)*, CA.GOV, <http://www.cpuc.ca.gov/PUC/energy/Renewables/> (last visited May 22, 2014).

20. CAL. PUB. UTILS. COMM’N, BIENNIAL RPS PROGRAM UPDATE 4 (2014) (stating that “California’s three large [investor owned utilities] collectively served 19.6% of their 2012 retail electricity sales with renewable power.”).

21. *Cap-and-Trade Program*, CA.GOV, <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm> (last visited May 22, 2014).

22. *See generally* CAL. NATURAL RES. AGENCY, SAFEGUARDING CALIFORNIA: REDUCING CLIMATE RISK (2013), *available at* http://resources.ca.gov/climate_adaptation/docs/Safeguarding_California_Public_Draft_Dec-10.pdf.

23. THE GOV’T OFF. OF PLANNING & RESEARCH, *OPR Director*, CA.GOV, http://opr.ca.gov/s_director.php (last visited May 22, 2014).

24. *Governor’s Office of Planning and Research General Plan Guidelines*, CA.GOV, [://opr.ca.gov/s_generalplanguidelines.php](http://opr.ca.gov/s_generalplanguidelines.php) (last visited May 22, 2014).

dictions.²⁵ While the law varies by state, general plans set forth how cities are supposed to develop or not develop open space and other areas.²⁶ In California, in theory, general plans are supposed to be updated fairly often.²⁷ There are around 440 jurisdictions in California, and over 50% of the general plans in California are over fifteen years old.²⁸ Los Angeles, both county and city, have general plans that are each thirty-eight years old.²⁹ Things have changed quite a bit in thirty-eight years in Los Angeles.

We are trying to change how general plans are conceived and what they are. Currently, it is expensive and difficult to update and general plan. There is a lot of environmental review required for an updated general plan, and the plan and environmental documents are often subject to litigation. We want to change that and move to an online system where we will provide general plans to anybody who wants to use them. The online system will include templates for portions of the general plan. The first templates available will focus on in-fill, climate change, and issues connected to climate change. We will encourage local jurisdictions to download the templates and modify them as they see fit.

More importantly, we are going to provide to local jurisdictions and the public, a free, large amount of data and a mapping tool to go with it. The mapping tool will allow those interested to create their own plans and maps. We will also provide data at a parcel level, identifying open space, different and use designations, energy consumption, and many other data sets. In addition, the tool will allow input from any location-based data set.

Any member of the public or an NGO or governmental entity can use that same data and same information and say to a city, "Why did you choose to do this, when clearly the land use doesn't work with your proposal?" This is an effort to democratize, to have a dialogue and to provide some transparency, and also to make it much easier to update plans on an ongoing basis. Our hope is that this is a significant change for general plans and planning more broadly. It may also change how environmental evaluation is done because it will make the process much more transparent. We expect to roll this out in September. Some people

25. See DAVID L. CALLIES ET AL., CASES AND MATERIALS ON LAND USE, 28 (6th ed., 2012); *Governor's Office of Planning and Research General Plan Guidelines*, *supra* note 24 (stating that "[a] General Plan is the local government's long-term blueprint for development.").

26. See *id.* at 28–29.

27. See *Governor's Office of Planning and Research General Plan Guidelines*, *supra* note 26 (stating that "the OPR is responsible for updating the General Plan Guidelines.").

28. *California Cities by Incorporation Date*, CAL. ASS'N OF LOCAL AGENCY FORMATION COMM'NS, (March 2011), <http://calafco.org/index.php/component/content/category/22-calafcoresourcescategory> (showing that eleven out of the 482 incorporated California cities were incorporated after 1998).

29. *General Plan Q&A*, GENERAL PLAN 2035, <http://planning.lacounty.gov/generalplan/faqs> (last visited May 22, 2014).

are very excited about this, and there are some people who are a little nervous.

Next, I want to talk a bit about high-speed rail in California.³⁰ You may wonder why I see this as part of resilience, but I think that if we do not do high-speed rail, if we are not effective in having a high-speed rail system in California, the Central Valley in particular in California will be doomed to a second-class existence. Let me quickly tell you why.

In Spain, between Madrid and Barcelona, which is a similar distance as between Los Angeles and San Francisco, they reduced air traffic by about 70%.³¹ It would be very beneficial for California to reduce the amount of air travel between the Bay Area and the L.A. Basin. People forget that \$60 billion for high-speed rail³² is comparatively cheap when you consider that in order to expand airports to take the additional traffic over the next twenty or thirty years, it would cost about \$150 billion,³³ and give rise to multiple land use disputes. More importantly, the Central Valley, which is one of the world's great agricultural areas, is a great risk of being paved over as sprawl development. The City of Fresno, for example, is built on some of the best agricultural land in the world, and the city continues to expand into the agricultural areas.³⁴

That is neither sustainable nor resilient from either the city's perspective or from the agricultural community's perspective. We can have a high-speed rail system that says, "Okay, we're going to really put resources into transit-oriented development around high-speed rail stations, and instead of having parking lots around those rail stations, what if we have rail connectivity, bus connectivity, public transit connectivity to other areas where we can have higher-density development, and we can do this novel thing where we might actually plan these developments instead of allowing them to go into open space and into agricultural areas."

30. See CAL. HIGH-SPEED RAIL AUTH., <http://www.hsr.ca.gov> (last visited May 22, 2014).

31. See *Madrid Air Traffic to Barcelona (Down 40%), Malaga (Down 50%) Impacted by Expanding AVE High-Speed Rail Network*, ANNA-AERO (Feb. 9, 2010), <http://www.anna.aero/2010/02/09/madrid-air-traffic-to-barcelona-down-40-malaga-down-50-impacted-by-expanding-ave-high-speed-rail-network/>.

32. See *California High-Speed Rail Program Revised 2012 Business Plan: Building California's Future*, CA HIGH-SPEED RAIL AUTH., ES-13 (Apr. 2012), http://www.hsr.ca.gov/docs/about/business_plans/BPlan_2012ExecSum.pdf#page=16.

33. *Good for the State, Good for the Environment*, CA HIGH-SPEED RAIL AUTH. (Oct. 2013), <http://www.hsr.ca.gov/docs/newsroom/fact%20sheets/Good%20for%20the%20State,%20Good%20for%20the%20Environment.pdf>.

34. See City of Fresno, *Fresno Enterprise Zone*, FRESNO.GOV (Jan. 10, 2013), http://www.fresno.gov/NR/rdonlyres/CB67642C-05B5-42F3-9A33-24D7FC90906F/26454/NewEZ_map.pdf (showing the expansion of the city of Fresno).

It turns out that Silicon Valley is quite interested in high-speed rail because one of the areas for expansion for high tech is agriculture.³⁵ Right now, there is no easy way to get between Silicon Valley and the Central Valley, so you lose an economic connection between the coast and the center of California. All of these things tie together in a way that creates the potential for sustainability and resilience and expands markets. We have not talked much about economics and labor, but that's part of resilience as well.

Let me now turn to an alternative to high-speed rail. The Governor, Governor Brown, is very fond of this fact: Californians drive 332 billion vehicle miles a year.³⁶ That amounts to 4,000 round trips to the sun.³⁷ If we are going to survive climate change, we have to leave approximately two thirds of the known reserves of fossil fuels in the ground. By driving 332 billion miles, California is not exactly helping out with that concept. We are however going to have our one hundred thousandth electric vehicle on the road this year.³⁸ We are working quite extensively to have the appropriate infrastructure for a growing fleet of electric vehicles, which again is a land use issue. How do you devise a system that makes electrical vehicle infrastructure and charging available in a manner that work for how electric vehicles will be used and, as a result, replace combustion engine vehicles? We are confronting that challenge.

California has a law called SB-375, which requires regional planning,³⁹ a whole new concept in California, which is fascinating. That law and the regional approach promote transit-oriented development. In addition, we are working very hard on something called scenario-planning models, which allow decision makers and the public to look at different development patterns.⁴⁰ The city of Fresno, for example, is trying to figure out how to restore downtown.⁴¹

The biggest issue, it turns out, is funding. How do you finance restoration of a blighted downtown? Scenario planning models help the discussion. That can tell you, for example, something that is probably intu-

35. Grow California, *Silicon Valley to Focus on Ag in Central Valley and Beyond*, GROW-CALIFORNIA.COM (June 17, 2011) <http://www.grow-california.com/news/silicon-valley-to-focus-on-ag-in-central-valley-and-beyond/>.

36. *Transportation Funding in California: 2014*, CAL. DEPT. OF TRANSP., 1 (2014) http://www.dot.ca.gov/hq/tpp/offices/eab/fundchrt_files/Transportation_Funding_in_CA_2014.pdf.

37. The distance between the earth and the sun is 93 million miles. Elizabeth Howell, *How Far are the Planets From the Sun?*, PHYS.ORG. (Apr. 22, 2014) <http://phys.org/news/2014-04-planets-sun.html>.

38. *DMV Newsroom*, CAL. DEPT. OF MOTOR VEHICLES (Jan. 1, 2013) http://www.dmv.ca.gov/pubs/newsrel/media_center/ (noting that there are 124,713 registered electric vehicles in the State of California.).

39. See S. Cal. Ass'n of Gov't, *Scenario Planning Model*, SCAG.CA.GOV., <http://www.scag.ca.gov/DataAndTools/Pages/ScenarioModel.aspx> (last visited May 22, 2014).

40. *Id.*

41. See *Chief Executives, Mayor Swearingin Launch the 'Fresno Presidents' Council' to Address Fresno's Long-Term Challenges*, CITY OF FRESNO (Feb. 25, 2014) <http://www.fresno.gov/News/PressReleases/2014/challenges.htm>.

itive: the more you expand and build on the edges of cities, the less cost effective that is for the municipality. Those areas need services, infrastructure, maintenance and upkeep.⁴² Sprawl development works well for the first few years, but as infrastructure ages it must be maintained and restored.

It turns out there is something of a sweet spot with densities and mixed use, particularly in the downtown area. It's not all high rises, but there is greater density, and there is a different mix than California has been building. The scenario tools help show different outcomes, which turns out to be persuasive to a lot of folks across the political spectrum, and who say, "Wow, we need to think about revenue over time." That's an interesting development.

In California, we are doing a fair amount with all kinds of open data.⁴³ Having lots of data is not enough; we have to provide tools to use the data. We are working very hard to make both the data and the tools available so that people can participate in planning decisions. I have been [mis]quoting Senator Daniel Moynihan more and more lately, "We're all entitled to our own opinion, but you don't get to have your own set of facts."⁴⁴ With open data, we can at least provide a consistent set of information.

I thought I would leave you, since this is a law school symposium, with a difficult legal issue that you may not have considered. The desert kit fox is an endangered species in California.⁴⁵ One place that it lives is on the Carrizo Plain near San Luis Obispo, an incredibly beautiful area. I practiced environmental law for twenty-five years and spent a lot of time trying to preserve places like the Carrizon Plain. Now, resilience and sustainability is also about renewable energy, and renewable energy projects very often need to be sited in locations that we spent all this time preserving.

This issue is tearing environmental groups and environmentalists apart, because we have to make some very difficult choices. We need large-scale renewables, and at least some of them have to be in sensitive areas because that's where the resource is. Emotionally, it is incredibly difficult to figure out how to do that. Often, I hear, "I really support renewable energy. We've got to build more of it, but this is not the right

42. NANCY CHIN, UCL WORKING PAPER SERIES NO. 47, UNEARTHING THE ROOTS OF MODERN SPRAWL: A CRITICAL ANALYSIS OF FORM, FUNCTION AND METHODOLOGY 14 (Mar. 2002), available at <https://www.bartlett.ucl.ac.uk/casa/pdf/paper47.pdf> (finding "some agreement" to the charge that urban sprawl is a cause of higher infrastructure cost).

43. OPEN DATA HANDBOOK, *What is Open Data?*, <http://opendatahandbook.org/en/what-is-open-data/> (last visited May 22, 2014) (stating that "[o]pen data is data that can be freely used, reused and redistributed by anyone . . .").

44. George F. Will, *The Wisdom of Pat Moynihan*, WASH. POST, Oct. 3, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/10/01/AR2010100105262.html> (quoting Daniel Patrick Moynihan, an influential American senator, as saying, "Everyone . . . is entitled to his own opinion, but not to his own facts.").

45. *Endangered Species Facts*, ENVTL. PROT. AGENCY (Feb. 2010), <http://www.epa.gov/espp/factsheets/san-joaquin-kitfox.pdf>.

spot."⁴⁶ As a result, we now have many legal issues around sustainability.

The kit fox is a very smart animal. On the Carrizo Plan, in a large solar energy project, the project engineers built some fencing that allowed the kit fox to go inside the fenced area. Its predator, the coyote, is a little too big to get through.⁴⁷ The solar project is protecting the kit fox.

There are a lot of kit fox on the Carrizo. This is working out well so far for this particular endangered species.⁴⁸ Such an accommodation is not always possible, but we should be open to exploring such opportunities.

Progress in this climate-constrained world is incredibly difficult, and we have to make that progress on a very accelerated basis. I think of it as a global emergency. It's a little bit slow moving so it is hard to grasp at times.

We have less time for process, and as a lawyer who was brought up on process—and I come from California so we know a hell of a lot about process, particularly in the world of the environment—this is a challenge. We must figure out how to define disputes better, to figure out how to compromise, resolve, and move on. So far, we are not doing very well at it, but, fortunately, those of you who are in law school, you get to figure out how to move us there.

Thank you very much. It's been a pleasure to be here.

46. See e.g., Jennifer Runyon, *Renewable Energy Brings out Some Extreme Nimbyism* (Mar. 24, 2014), <http://www.renewableenergyworld.com/rea/blog/post/2014/03/renewable-energy-brings-out-some-extreme-nimbyism> (exploring “Not in my Back Yardism” or “NIMBYism,” a culture that rejects renewable energy harvesting apparatus’s near their homes due to the non-aesthetic nature of those apparatus’s).

47. See BRIAN L. CYPHER & CHRISTINE VAN L. HORN JOB, PERMEABLE FENCE AND WALL DESIGNS THAT FACILITATE PASSAGE BY ENDANGERED SAN JOAQUIN KIT FOX 14 (Mar. 2009), available at http://www.slocounty.ca.gov/Assets/PL/Optisolar-Topaz+Solar+Farm/Documents/Environmental/Attachment+1+-++Kit+Fox+Fence+Paper_Mar+09.pdf (providing examples of the fences designed to preserve the Kit Fox); ALTHOUSE & MEADE, INC., TOPAZ SOLAR FARM: SAN JOAQUIN KIT CONSERVATION AND MONITORING PLAN (Apr. 2011), available at <http://www.slocounty.ca.gov/Assets/PL/Optisolar-Topaz+Solar+Farm/kitfoxplan.pdf> (providing a development plan for a solar farm that would use this type of fence).

48. The kit fox is considered of “least concern,” the lowest rating on the endangered species spectrum. *Vulpes Macrotis*, THE RED LIST, <http://www.iucnredlist.org/details/41587/0> (last visited May 22, 2014).