

ATTACHMENT F

**Written Communications (CAC Members)
October 18, 2016 CAC Meeting**

From: Annette Glanckopf
Sent: Friday, October 07, 2016 1:04 PM
To: Moitra, Chitra
Subject: Re: Comprehensive Plan Update--Natural Environment Element.

Hi Chitra Here are some comments to add. Sorry I am a little late with this, but hope it can get incorporated. The 2 programs in italics are optional.
Annette

Water Policy: Plan for water scarcity due to climate change and added demand for water due to population growth by regulating all groundwater use.

Program 1. All groundwater extracted must be metered and charged at market rates.

Program 2. All uncontaminated (does not contain toxic chemicals) groundwater extracted must be used for the benefit of the community. This includes irrigation of parks, streetscape, etc., street cleaning, dust suppression, fire-fighting, etc.

Program 3. De minimis (1(?) million gallons or less) groundwater extracted may be recharged to the aquifer via onsite percolation.

Climate Change

Policy: All City programs and plans shall take into account expected changes and impacts due to climate change and include enough variability in the plans to accommodate a wide variety of potential outcomes. These changes include, but are not limited to, extended droughts, severe storms, floods, less water as snowpack from the Sierras, sea level rise, groundwater inundation, extreme temperatures and increase in wildfires.

Program 1: Review and update zoning and other policies to account for the effects of climate change.

Program 2. Develop a carbon cost equivalency for all processes, materials and equipment used in construction. This carbon cost shall be considered in the granting of building permits and in the green certification program. (For example, depending on the type of cement used, production of 1 ton of cement produces about 1 ton of greenhouse gases. A federal appeals court recently ruled that a cost of \$36 can be ascribed to 1 ton of greenhouse gases. Stanford claims the cost is actually higher, \$220/ton of GHG but the lower number is a start to costing the effects of construction and other processes on global warming).

Program 3. Plans to mitigate for climate change shall include aquifer storage and recovery, floodplain and stream restoration, flood diversion and storage, and green infrastructure methods.

Policy: Resilient infrastructure and structures should be designed to protect the life and safety of the public, minimize economic loss, and maintain availability and continued use of infrastructure services.

Program 1. Decentralize, as necessary, new infrastructure so as to minimize the impacts of climate change. For example, waste treatment for new buildings can be done on site to minimize load on the wastewater treatment plant as well as to mitigate effects of sea level rise on the centralized system; microgrids can be the main power source during power outages due to extreme weather events or manmade failures.

Program 2: Prohibit unnecessary underground construction in areas in which the current groundwater level is 14 feet or less to accommodate expected higher groundwater levels due to sea level rise and minimize consequent flooding of underground construction.

Program 3. Require all construction projects to determine and pay for the total carbon costs of the project in order to incentivize reducing the production of green house gases.

Policy: Mitigate the effects of climate change on the Natural Environment

Program 1. Protect our City's groundwater as a hedge against salt water intrusion due to sea level rise.

Program 2. To minimize floods in areas with high groundwater levels, avoid removal of water retaining soils due to underground construction.

Program 3. Minimize coastal erosion due to sea level rise by protecting our wetlands.

Policy: Develop and implement a citywide climate change education and awareness program

Program 1. Encourage City staff to keep up with climate change impacts in their fields and implement an incentive program for innovative ideas that are implemented.

Program 2. Research and implement educational programs for children regarding climate change. These can be offered at after school programs, library events, camps, etc.

Program 3. Conduct public awareness campaigns regarding actions the City is taking to mitigate the effects of climate change via social media, newspapers, CPAU inserts, etc.

Program 4. Encourage City policy makers to reach out and consult the many experts in our community in order to make the best science and data based decisions.