

AAUW-SM Branch Blog January 2019

Is Climate Change Real? John Lindsey, PG&E

Program: Is Climate Change Real?
Speaker: John Lindsey, PG&E Meteorologist and Media Relations
Sponsors: AAUW Santa Maria Branch & Santa Maria Public Library
When: Friday, January 24, 2020, 3 pm
Where: Santa Maria Public Library, Shepard Hall

He will talk about climate change and unpredictable disasters. What we need to be doing. How can we plan for worldwide migration, hunger and sickness that is predicted with extreme changes to the planet earth worldwide?

John Lindsey has presented to our group before and is always filled with interesting information. Today's topic, Climate Change, brought us a standing room only audience, filled with people from 18 to 88. It seems everyone is looking for answers.

John shared that this is not a new phenomenon ... every 100,000 years or so our planet experiences global warming and ice ages as normal patterns over millions of years. Levels of CO₂ rising above expectations this time are related to manmade methane gas and other planet changes due to manmade creations. He stressed that long term trends, over hundreds and hundreds of years, help to understand climate change. Much of what is being spread via social media these days is often based on short term trends, over these past 100 years, and are not accurate predictors.

John stated that water has a greater heat capacity than air does, therefore, water is a better medium to do temperature calibrations. Water is normally (average) about 54 degrees +/-, and the warmest recorded has been 67 + degrees ... this is big information for meteorologists and others studying climate change. Often cited in articles are incidents of isolated information which often leads to inaccurate conclusions. Isothermal temperatures remain constant at the top and 4000 ft down and the isothermal process is monitored closely in studying climate change.

We are going through a time where the Atmosphere and the Earth are warming up. Sea level is rising, expecting to rise by 45 inches in 2100, while the average temperature is expected to rise by 6 degrees, and with wildfire risk is expected to rise by 300% by 2050. Water as a gas in the atmosphere is called water vapor. The maximum amount of water vapor that can be in the air depends on

the air temperature. **Warmer air can hold more water vapor** within it. That's why the muggiest days usually happen at the height of summer heat. The **increase in water vapor in the atmosphere**, because **water vapor** is an effective greenhouse gas, thus contributes to even more warming: it enhances the greenhouse effect. **Water vapor** is often discussed and recognized as being an important part of the global warming process. Droughts will be more severe and more prolonged, but they will be broken up by stronger, bigger storms (the Pineapple Express for the West Coast). As the temperatures increase, humidity increases, ground and trees are drier, hence, increased wildfires.

What can we do? Electric Cars (EVs), Solar Panels, the Utility Companies are all involved in monitoring and making improvements to decrease their carbon footprints and their participation to improve the environment. People will be creative during these next years to find ways to improve our air quality, our environments, our atmosphere, while maintaining our basic needs for food, shelter, transportation, communication, and more, while still allowing the natural patterns of weather and climate exchange to occur.



