

# THE PRINCETON PACKET



SOLUTIONS

By Huck Fairman

## Earth Day reminder: Importance of managing our planet

With the release of the Mueller Report, people in this region, and probably through much of the country, have been gripped by what it means for the nation.

Around the world numerous other problems have been challenging nations and populations, be it Brexit, the Notre Dame fire, elections in Ukraine and Turkey, uprisings in Sudan and Algeria or turmoil in Venezuela or Honduras.

But continuing beneath the debates and clamor has been global warming and all its repercussions. A country that we think of as being relatively dry, Iran, has been overwhelmed by floods since mid-March. Millions have been impacted, as has been the national economy. This has coincided with our midwest flooding and that in Southeast Africa. While understandably, political problems absorb much public attention, we turn our attention away from global warming at our own peril.

This week, despite the Brexit impasse, it has been global warming that prompted the governors of The Bank of England and the Banque De France to issue a joint warning that the financial sectors, banks and insurance companies, face an existential threat from climate change. They wrote that, "Climate Change is a global problem, which requires global solutions, in which

the whole financial sector has a central role to play."

At the same time, London protesters occupied Waterloo Bridge as part of a campaign to demand action on climate change. And this week Earth Day gives everyone the opportunity – the reminder – to respond.

Not surprisingly, however, human populations respond in different ways to this most crucial of issues. And despite the near unanimity of scientists on this, still some individuals feel compelled to deny the situation.

But as humans are various in their beliefs and political philosophies, so the planet itself is surprisingly varied, in its regions, make up, and systems. And the sooner humans recognize the complex interconnections between the planet's systems, the better our chances of sustaining them.

Probably the most widely-recognized, complex, single environment is the Amazon basin's Rain Forest. Many people know that it is considered "the lungs of the planet," for all the oxygen it produces and CO<sub>2</sub> it absorbs. But relatively recent study has found that the system is considerably more complex. The area receives over seven feet of rain per year. The equatorial

heat evaporates water, from the forest and the oceans, but that evaporation also carries salts and gaseous compounds. Forest fungi spews spores, and the winds picking up those spores also carry bacteria, pollen, bits of leaf and insects. It is an amazing distribution system. In this way the forest is also sprayed by the rains transporting microbes and organic residues, which in turn help produce more rain. The abundant rain irrigates vegetation and farms throughout South America and up to our South and even into Canada. Moreover, these microbes have been found to impact or contribute to various geological processes. Thus life on the planet is, in effect, a large, living body, whose life depends on the interactions of many systems and elements.

In a similar, circular, or corporeal relationship, it is now understood that ocean plankton "drive chemical cycles on which other life depends." And this other life emits gases which contribute to cloud cover, moderating temperatures. In addition, seaweed, coral and shellfish store large amounts of carbon, balancing the oceans' chemistries. But – among the most important questions – will the warming seas throw off this balancing, as we've already begun to see? And with the imbalance, will

other repercussions begin to cascade?

We've seen this in our atmosphere, with the increased greenhouse gases holding in the solar radiation. It has been anticipated that warming Arctic tundra will release dangerous levels of methane.

Some people argue that humans are not powerful enough to change climate, but the simple, observable, measurable evidence, all around us, proves otherwise. In recent years, the rich, moist Amazon region has suffered unusual droughts. And they will impact the elements and systems that have sustained it up to now.

Thus what science has relatively recently learned is that climate does not operate in response to only a few variables, but is balanced and sustained by the interaction of many elements and systems. If those interactions are interrupted or their elements changed, then climate will change, just as the human body can experience trauma when it in some way is deprived or altered. Saving our climates, and civilizations will depend therefore on maintaining the life on our planet as we know it, and that will require understanding and care similar in approach to what our bodies need.