## "Earth Has a Fever"

Sermon by Rev. Duffy Peet
Shared with the Unitarian Universalist Fellowship of Bozeman on August 29, 2021

When I came up with the title of today's sermon, Earth Has a Fever, in mid-July, Montana was in the midst of a significant and prolonged heatwave and drought. Bozeman and other Montana cities were experiencing unusually high and even record temperatures not just for several days but for weeks. And the air quality was poor because of both the large number and size of wildfires across a significant portion of the western U.S. The sermon title came to me on a day when the valley air was filled with smoke and the temperature in Bozeman was in the mid-90's. I wasn't aware then that the International Panel on Climate Change would be releasing its Assessment Report, which Paul shared excerpts from earlier, just a few weeks later. As you heard from what Paul shared, "It is unequivocal that human influence has warmed the atmosphere, ocean and land." In other words, human actions are responsible for Earth having a fever.

This is the Sixth Assessment Report that the IPCC has produced. Each has been more detailed than the one before it. The full report is thousands of pages in length. The Summary for Policymakers, which is at the very beginning of the report, is 41 pages in length. I will admit that I have not read the full report and doubt that I ever will. It is hard for me to imagine that very many people will read the entire report. I reviewed the Summary for Policymakers and found that it contained plenty of information for my purposes. It is extremely unlikely that those who are skeptical that climate change is occurring, or if it is, that humans are the cause of it, will even look at this report let alone read it. The report was written and compiled by more than a thousand scientists and climate experts from around the world. And it was approved for release by the 195 member governments of the IPCC. For those of us who aren't climate change deniers knowing that this document is a product that has been thoroughly researched, reviewed, and unanimously approved by representatives of 195 governments from around the world should convince us that what it contains is not just accurate information, it is seriously important information that we all need to pay attention to.

One of the basic messages contained in the report is that we humans need to change our ways. In no uncertain terms the report states that we must dramatically reduce our emissions of Carbon Dioxide, or CO2, into the atmosphere. Much of the CO2 that we humans release into the atmosphere is the result of our burning of fossil fuels. We burn fossil fuels to power our cars, trucks, buses, planes and trains. We burn fossil fuels to generate electricity, think coal fired and natural gas fired power plants here. And we burn fossil fuels to heat our homes and businesses. Our reliance on burning fossil fuels poses a grave threat to the ongoing viability of the human species. More than that, our burning of fossil fuels threatens the long-term existence of most species of living beings currently on the planet. There are growing concerns in the scientific community that we are currently in the midst of what Pulitzer Prize-winning author Elizabeth Kolbert refers to as the "sixth extinction." The phrase, the sixth extinction, relates to scientific findings that indicate there have been five previous times in Earth's history when significant numbers of living species died out. The number of species that have either gone extinct or are on the verge of extinction has been increasing dramatically over the past several decades. Thus the term the sixth extinction.

I am confident that much of what I have shared so far is common knowledge for many of you. I still recall the conversation at the Fellowship's Annual Meeting in May of 2018. At that meeting we discussed and adopted the new Mission Statement that had been proposed. While people liked what was included in that Mission Statement there were quite a few people who expressed concerns about what was missing. There was nothing in the Mission Statement that was presented that day about our concerns for, and commitment to, the health of our planet. The concerns that were expressed at that meeting resulted in a vote to amend the Mission Statement at the Annual Meeting on January 13, 2019. The amendment was just four words, which were added at the end. The Mission Statement is printed on the front of our Order of Service every Sunday. Since it is very short I want to share it with you now. "We: Welcome Diversity, Act for Justice, Foster Spiritual Growth, Inspire Compassion, Nurture Community, Sustain Our Living Planet. It is because of the discussions

that I was a part of that day, as well as many other discussions since then, that I am confident many of you are aware that we need to take action to address human caused climate change.

As I mentioned previously, and you heard in the excerpts from the report that Paul shared, CO2 emissions are a significant factor in the increase in average global temperature that is, and has been, occurring. But CO2 emissions are only one type of gas emissions that are causing temperatures to rise. Along with CO2, the letters GHG are found throughout the IPCC report. Some of you may have already figured out that GHG stands for greenhouse gases. Another greenhouse gas that we need to be concerned about is methane. Methane comes from a number of sources, including from the rear end of cattle, especially commercially raised cattle. Those of you who heard or read my sermon of August 1 titled "Confessions of a Carnivore" will recall that I mentioned some of the conflicts that eating meat presents for me. I didn't mention in that sermon that by eating commercially raised meat I am supporting an industry that adds to the emissions of methane into the atmosphere. Eating commercially raised meat increases my "carbon footprint," or, in other words, the amount of CO2 and methane I am responsible for that ends up in the atmosphere. Another natural source of methane emissions is from the decomposition of organic material in wetlands. Human caused releases of methane include releases of underground methane from oil and gas wells as well as leaks from natural gas pipelines.

Methane doesn't get the level of attention that CO2 does, either in the report or in most news stories, but it should. It deserves equal attention because a molecule of methane has 23 times more greenhouse effect than a molecule of CO2. Let me say that again. A molecule of methane has 23 times more greenhouse gas effect than a molecule of CO2. And as areas of our planet that have typically been frozen warm and thaw, massive amounts of methane that have been trapped below the ice or the frozen ground will be released. Peter Wadhams writes about this in his 2017 book, A Farewell to Ice, A Report from the Arctic. Wadhams is Professor of Ocean Physics and Head of the Polar Ocean Physics Group in the Department of Applied Mathematics and Theoretical Physics at Cambridge University. He has made annual visits to the world's poles to measure and study the ice caps and their surrounding areas for more than 50 years. In his book he is quite critical of the previous IPCC report. Specifically, he is critical of the conclusions in the report related to what he asserts are the underestimations it contains both about the release of methane from the polar regions and the impact such releases will have on the global climate.

I recognize that much of what I have been sharing so far is disheartening if not depressing. So I want to shift focus now. While much of what is contained in the IPCC report is distressing, the report isn't all bad news. The report also tells us that there is reason for hope. At this point we can't prevent the continued increase in average global temperature or reverse some of the effects caused by our burning of fossil fuels in years and decades past. But we can prevent a rise in temperature that would almost certainly result in the extinction of the human species and many other species as well. Section D of the Summary for Policymakers portion of the report is titled "Limiting Future Climate Change." This section provides information about what needs to be done. It speaks about how, by reducing and eventually eliminating human caused CO2 emissions, we can significantly improve the possibility that the rate of climate change we have been experiencing can be slowed and even stopped. In other words, while we humans have caused significant harm to the Earth and its atmosphere, there is still time for us to change our ways and keep the planet cool enough that it will support humans for generations to come.

None of us alone can make all of the changes mentioned in the report to ensure the Earth will be habitable for humans into the next century and beyond. Yet while we can't do it alone, together we have the power, and the ability, to prevent the worst case scenarios contained in the report from occurring. So I want to take some time now to speak about step we can take that would be beneficial. And who, you might ask, am I referring to when I say we? I am referring both to each of us as individuals as well as to us collectively.

There are so many steps we could take, both as individuals and collectively, that I can't possibly include them all in a single sermon, let alone at the end of this sermon. So as I share the following suggestions for steps to take, I want to acknowledge that I will be leaving some out. If you know of other steps people can take, I encourage you to share them. You might want to send them out on the UUFB listserv.

The first step I want to suggest is that we let our elected leaders know that we expect them to take bold and decisive actions to address both the causes of and the threats related to human caused global climate change. Our elected leaders need to vote to make investments that match the scale of the climate crisis and meet the needs of our communities, especially disadvantaged communities, that are negatively impacted by our use of and dependence on fossil fuels. And we can contact government agencies, such as the Environmental Protection Agency—EPA for short—to let them know we support more stringent rules related to greenhouse gas emissions. One such rule that is currently being considered is called the Clean Cars rule. The Clean Cars rule has the potential to significantly reduce the amount of CO2 that goes into the atmosphere from automobiles in the years and decades ahead.

On the personal level, we can make changes to various aspects of our lives. We can reduce our own carbon footprint in several ways. Here are a few possibilities. We can use our fossil fuel powered cars as little as possible. We can replace our current fossil fuel powered car with an electric vehicle. We can walk, ride a bike or use public transportation instead of driving a car. Or we might alter our diet to reduce our meat intake, especially our commercially raised meat intake. These are just a few things a person or family can do to reduce the amount of CO2 they are responsible for having emitted into the environment. If you want to learn about other possible options, I encourage you to check out the "household calculator" that can be found on the Interfaith Power and Light website. That website is located at www.interfaithpowerandlight.org. The calculator can be found by clicking on "get involved," then "programs" and next "cool congregations." If you have difficulty finding the household calculator, send me an email and I will help you get to it.

And since I just mentioned congregations, let me shift to what our Fellowship might do to reduce our carbon footprint. One thing we might want to consider is putting solar panels on the south facing roof of our building. Solar panels would provide the electricity we use without putting more CO2 into the air. This might be a very good time for us to begin looking into this possibility. I understand that the bipartisan budget bill that was passed by the Senate and will be voted on by the House of Representatives next month includes \$50 million that can be used by non-profit organizations, such as our Fellowship, to upgrade infrastructure and purchase more energy-efficient equipment. Installing solar panels fits into this category.

As I said, there are many more possible actions we could consider and take than I have time to mention today. My hope is that what I have shared with you this morning motivates you, and us, to take steps that will reduce the amount of greenhouse gases we humans release into the atmosphere. As the IPCC report makes very clear, the threat posed by global climate change is very real. Humans are the cause of the global climate change that is occurring. And humans need to take action quickly and decisively to modify our behavior. The time for action is now, not years or decades from now. The people who must take action is us, and that means all of us. May we heed the call to action and take the steps we are capable of in order to, as is stated in our UUFB Mission Statement, "sustain our living planet."

So may it be