



Conservation Insider

January 2022

Hello and a very Happy New Year to all our friends, partners and volunteers! Now that 2022 is here we are excited to begin again the work in Comal County to protect Land, Water, and Wildlife. In other words, let's KEEP COMAL WILD ! We will continue to send our *Conservation Insider* to your in-box to keep you up to date and please remember what a great website we have at <https://www.comalconservation.org>

CCCA NEWS

REMINDER

Tuesday, January 11, 6:00 - 7:30 PM

CCCA's JANUARY 2022 VIRTUAL COMMUNITY PROGRAM

"FLOODING, CARBON, CLIMATE - OH MY!"

Ever wonder what we can do about flooding, carbon in the air, and climate? Debbie Reid will talk about how conserving land in a watershed can reduce downstream flooding and capture carbon from the atmosphere, thus helping avert the worst consequences of a changing climate. Healthy soils in parks, open spaces, and undisturbed natural areas can hold vast amounts of water and capture a remarkable amount of atmospheric carbon — just two of the many public benefits of keeping land in its healthy natural state. And we can do it right here!

WHO: Guest speaker, Deborah “Debbie” Reid, Technical Director of the Greater Edwards Aquifer Alliance

WHAT: Virtual Community Program on “Floods, Carbon, Climate — Oh My!”

WHEN: Tuesday, January 11, 2022, 6:00 -7:30 pm

WHERE: Click here: <https://us02web.zoom.us/j/82566882187pwd=dFo2NWxCQU41dnhSdXptZWdwYWtuUT09>

Meeting ID: 825 6688 2187

Passcode: 321755

Free to the public - More info at: <https://www.comalconservation.org/upcomingevents.html#Reid>

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Looking for a way to help protect Nature? We have some ideas!

CCCA is looking for a volunteer to manage our Facebook account. If you like to keep in touch and share news about conservation and preserving land, water, and wildlife, this is a great project for you.

We are also looking for interested volunteers to participate in our new Equity, Diversity, and Inclusion Workgroup to develop CCCA's efforts to engage with the full diversity of Comal County's individuals, groups and communities.

Interested candidates should submit their contact information and brief message at: www.comalconservation.org/donatecontact.html

In Other News

Call to Action - from the National Audubon Society

<https://www.audubon.org/conservation/climate-initiative>

According to the National Audubon Society, climate changes are the biggest threat to birds around the world. Learn how you can help by counting climate-threatened species in Audubon's bird and climate change community science program—Climate Watch.

Audubon's 2022 Climate Watch winter season is kicking off soon (Jan 15 -Feb 15), and volunteers are needed to participate in this community science effort. Climate Watch is a national project to explore how birds are responding to climate change.

Bexar Audubon Society is leading the project in our area this year and is seeking volunteer birders to participate in surveying for Lesser Goldfinch in specific 10 km x10 km squares across our region. Learn more about how climate change will reshape the range of the Lesser Goldfinch.

Requirements: A time commitment of 2-4 hours at least once between Jan 15 and Feb 15 to survey at least one 10km x10km section for the Lesser Goldfinch. You can enter your data into eBird via phone app then submit it to National Audubon through a designated portal

FREE Training Session will be offered via ZOOM—optional, but very helpful. You are welcome to attend. These protocol training/overviews will give you a good idea of what's involved. In the meantime, you can find some excellent information on the National Audubon Climate Watch website.

If you are **NEW** to Climate Watch, or need a review click here:
<https://www.audubon.org/conservation/new-to-climate-watch>.

Email local Climate Watch Coordinator Patsy Inglet to volunteer or for more information:
engagement@bexaraudubon.org

CCCA H-Z January Column

THIS IS A VERY SPECIAL GIFT!

By Frank Dietz for the H-Z
January 2022

There have been some very dear responses to last month's anticipation of the season of giving and the pondering of alternative gifting. Appropriately I was asked, "did you want to say something about those who do set aside land/acres for future generations?" Of course!

The conversation may begin around a family table amidst the fellowship, laughter, tearfulness about all the adventures and misadventures on a Texas Hill Country ranch. That's likely one of the legacy or heritage homesteads that may reach a century or more of generational care and tending. For some others with the good fortune of land acquisition, the acreage may be a parcel more recently acquired. In either case, the question about "preserving, protecting, making available for future generations" leads to a commitment to explore conservation. A "conservation easement" is one way to preserve and protect property. Another gift option would be for parkland with the local, county or state authorities.

Such a scenario inevitably leads to quite a conversation about land values, areawide development, family plans and most likely, "the young ones" as well as those "on the way" and "yet to come." Legacy is a key component for the family and/or general public. Informed by deeply held values and the honoring of heritage, observations about "care of the land" and "careful use of water" lead to fascinating memories. Lots of "remember when?" "Did you ever think what they were doing was showing such care

about soil, crops, grasses and water availability?” Then someone points out that there is a process for protecting and setting aside acreage in a way that might be positive for the aquifer, wildlife, fresh air and more. The resolve arises, “let’s investigate this!”

Read the entire article at: <https://www.comalconservation.org/published-columns.html>

CCCA SPOTLIGHT - Our Texas Climate

How Will Global Warming Impact Texas Climate?

With hotter weather comes greater frequency of extreme weather

**By Fares Sabawi, Digital Journalist
August 11, 2021**

SAN ANTONIO – A new major climate report from an international group of scientists holds a grim conclusion — the global temperature is warming fast and the effects can be catastrophic.

The findings were part of a 3,500-page assessment released Monday by the Intergovernmental Panel on Climate Change, a group of more than 230 scientists from more than 60 countries.

It was the IPCC’s first report since 2014. Technology has progressed since then, allowing for more precise climate modeling and more confidence in the forecast.

The report shows that temperatures will be 1.5-degrees Celsius higher than pre-industrial (1850-1900) levels by 2040. That’s higher than previously estimated and faster than the rate that temperatures have risen in the last century.

The result is an increased likelihood of extreme weather events across the world, including in Texas.

In an interview with KSAT, Texas State Climatologist John Nielsen-Gammon said that, in some cases, the effects of global warming could be even more extreme in Texas.

Read more at: <https://www.comalconservation.org/texas-climate.html#Sabawi>

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What the New Climate Change Report Means for Texas

It’s not about saving the planet. The planet will survive. The planet will be orbiting the sun long after we’re gone. It’s about saving us. — Katharine Hayhoe

**By Brantley Hargrove
August 13, 2021**

The planet is running a temperature and it's getting harder not to notice. The western states seem like they're always on fire. Last month, the mostly un-air-conditioned Pacific Northwest shattered temperature records, giving folks in Portland, Oregon, a taste of Texas summer. Here, six years separated the hottest, driest year in Lone Star history (2011) from the most significant rainfall event in U.S. history (Hurricane Harvey, 2017), one of several one-hundred-year and five-hundred-year flood events to strike the Houston area in a span of three years. The three hottest Augusts on record in Austin are 2011, 2019, and 2020. So no, it isn't your imagination. Things are getting weird.

The latest report from the Intergovernmental Panel on Climate Change—that august global body that delivers semi-regular syntheses of the latest science on our warming world—concludes that conditions are virtually guaranteed to get worse. Scientists have long warned that an increase in average global temperatures of 1.5 degrees Celsius (or 2.7 degrees Fahrenheit) could produce catastrophic changes for humans and other animal and plant species. Unfortunately, according to the IPCC assessment released this week, the planet is expected to pass that threshold as soon as the early 2030s—just a decade or so from now. That means more drought, more fire, more heat, more unusually intense hurricanes. That's the bad news.

The good news is there's still time to head off the worst of it—and maybe even reverse some of the damage we've done.

Read more at: <https://www.comalconservation.org/texas-climate.html#Hargrove>

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Nature Can Reduce Costs, Extend Life of Infrastructure Projects

A new study by a Texas A&M AgriLife research scientist makes the case for natural infrastructure.

**By Adam Russell, Texas A&M AgriLife Communications
NOVEMBER 2, 2021**

A newly published article could prompt discussion around adoption of construction designs and methods that utilize nature to cut costs, extend project lifecycles and improve ecological synergy, according to a Texas A&M AgriLife Research scientist.

The lead author is Rusty Feagin, AgriLife Research professor and ecologist in the Department of Ecology and Conservation Biology in the College of Agricultural and Life Sciences, and the Department of Ocean Engineering in the College of Engineering, both at Texas A&M University. In addition to Feagin, 23 U.S. and European professionals in various fields including engineering, public policy, construction and biology contributed to the publication.

Feagin said the paper aims to initiate conversations about sustainable infrastructure and the need for incorporating natural elements into projects.

Publication of the commentary piece in One Earth is timely, as U.S. Congressional members continue to haggle over pieces of a proposed infrastructure bill, Feagin said. Natural elements go by many names, including “nature-based solutions,” “nature-based

features” or “natural infrastructure.” But regardless of the names used, everyone involved in national infrastructure construction needs to shift their mindset toward these ideas, he said.

Incorporating nature-based features, Feagin said, can reduce project costs and make infrastructure more resilient in dynamic natural settings, helping the structures last longer than traditional constructions.

“People tend to think of roads and bridges when we say ‘infrastructure,’ but infrastructure is really anything that represents the foundation we build society on, including our waterways, coastlines and ports,” he said. “Transitioning from concrete and steel to natural elements is not ideal for every project, but we need to begin looking at ways to implement these methods, especially where natural change is dynamic, and projects need to be more flexible within the changing environment.”

Opportunities Ahead

Natural infrastructure is especially applicable in areas where climate change is impacting weather variability, such as coastlines where storm surges can occur and riverbanks where heavy rains can cause flooding.

For example, rather than managing floodwaters with walls of concrete and steel, which can degrade over time, incorporating natural infrastructure might mean utilizing natural levees and landscape features to steer water via ecosystems like wetlands and retaining ponds. Natural infrastructure implemented correctly also improves with time, Feagin said.

Feagin said the U.S. Army Corps of Engineers and the Texas Department of Transportation are already incorporating natural elements within projects. European countries such as the Netherlands are also adopting an increasing number of natural methodologies in construction.

For a specific example, Feagin said, the proposed \$26 billion “Ike Dike” in the Houston-Galveston area designed to reduce the impact of flood events due to hurricanes and torrential rains is an example of a project that could benefit from natural infrastructure elements.

“The goal for any project would be to take advantage of natural processes, such as water movement to deposit sediment, or the spread of trees and native vegetation to help capture that sediment and build natural levees, sand dunes, and water detention basins,” he said. “By working with nature, you can minimize effort and cost and realize maximum efficiency in the overall system.”

Challenges To Adoption

A shortage of existing expertise and time needed to train the next generation of engineers are constraints to natural infrastructure application in building projects, Feagin said. Traditional engineering follows established technical planning criteria, whereas natural infrastructure requires technical expertise from professionals outside the field, such as ecologists.

Continue reading at: <https://www.comalconservation.org/texas-climate.html#Russell>

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Texans Face Greater Risk of Heat, Drought and Hurricanes, But There is No Plan to Tackle Future Threats of Climate Change

The state's silence stands in contrast to governments across the world tackling climate change at a UN summit in Scotland.

**By David Schechter, Chance Horner
November 7, 2021**

While the science on climate change is unequivocal – that Texas will face a future of more extreme heat, drought, fire and hurricanes – Gov. Greg Abbott's administration has no policy on how those risks will impact Texans or how to mitigate them.

Abbott's position stands in stark contrast to agencies, like the United States Department of Defense, which considers climate change a "threat multiplier" to military operations, and to the efforts of world leaders gathered at the United Nation's COP26 Summit in Scotland to negotiate rapid cuts in greenhouse gas emissions.

MORE EXTREMES AHEAD

In Texas, at least 210 people died in the cold and dark during the February 2021 winter storm. It was the most expensive disaster in state history.

Like a set of dominoes, the extreme cold created a cascading effect. For example, when power plants froze that meant some water plants, running on electricity, did not have the power to pump water. Without water, the National Guard resorted to airlifting bottles of water across the state.

A widely reported paper in the journal Science indicates the domino that started the cascade was likely climate change. In it, scientists draw a connection between climate change and the likelihood that arctic temperatures could sag all the way down to Texas.

"It's all tied together. Everybody has to worry about everything," said Dr. John Nielsen-Gammon, a professor at Texas A&M University and the Texas State Climatologist, talking about the risks of climate change.

Through his work, Nielsen-Gammon has been warning state policymakers about those risks for years. His latest research indicates we're headed for a future of more extremes: more 100-degree days, more extreme rainfall, more urban flooding, more intense hurricanes, more severe drought, more risk of wildfire. Does he think that officials responsible for mitigating against future risk must consider climate change in their planning?

Read the entire article at: <https://www.comalconservation.org/texas-climate.html#Schechter>

Remember, there is much more information about water, land and wildlife on our website!

Stay safe, stay healthy, enjoy nature! See you next month.

Comal County Conservation Alliance

<https://www.comalconservation.org/>

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