

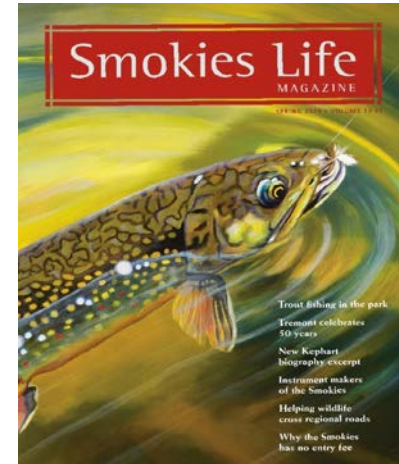
Climate Change Awareness Building Resiliency & Advocating for Change

2019 Upper Midwest Regional Rendezvous
Zion, IL



Today's Goals

- TU Climate Change Workgroup of the NLC: Organization, Goals & Output
- TU Critical Focus Areas
- “Like Minded Organizations”
- Four Climate Change Surveys
- Rollout Climate Change Coordinator
- Political Advocacy
- What You Can Do
- Questions



influencing when humans visit
the most-visited national park

TU's NLC Climate Change Workgroup



- 2011 - NLC's National Conservation Agenda recognizes threat from CC – *Protect & Restore*
- 2013 - SE Reg and Jack Williams, PhD, CC threatens National Conservation Agenda
- 2013 - NLC formed Workgroup by Larry Harris
- 2014 - Create CC Awareness, one of eight Critical Focus Areas
 - *to educate and engage TU's grassroots on the science of climate change, the observed and predicted impacts to coldwater habitat, and TU's on-the-ground work to make trout and salmon habitat more resilient to change, while acknowledging the dire threat posed by unabated greenhouse gas emissions*
- 2015 - Board of Trustees adopts CC and Responsible Energy Development Policy
- 2016 - Pamphlets, Videos, Blogs and Presentations – TROUT magazine Fall 2016
- NLC Climate Change webpage <https://www.tu.org/get-involved/volunteer/tacklebox/businesspractices/nlc/climate-change>
- **12 Million Members of “Like-Minded” organizations are getting same CC Awareness info**

Climate Change NLC Workgroup



- 20+ members: NLC Reps, TU Staff, Trustees and Others (monthly conf calls)
- Mission: **expand awareness** of the impacts of a changing climate on our coldwater resources that are essential for the survival of trout and salmon



Climate Change NLC Workgroup



- The extent to which climate change is human caused is a **divisive issue** and the Workgroup respects individual opinions
- **Scientific evidence** provided by TU staff and others is the basis for our education and awareness activities



Four Surveys show a Trend



- March 2014 Volunteer Leaders 78% CC is real, 58% a significant problem & man-caused 41% increased storms. 74% degrading cold water habitat.
- April 2017 All Members 85% is real, 76% significant problem & man-caused.
- March 2018 Business Partners 80% strong or moderately strong concern business interest. 66% see evidence. More than half changed way they operate. 90% of their clients view CC as a concern.
- April 2018 Yale University 70% is happening, 58% mostly man-caused.

CC NLC Workgroup: A Timeline Review

2014 CC as a Critical Focus Area

- 2014 - the NLC unanimously approved Climate Change as a Critical Focus Area, with an emphasis on creating climate change awareness.
- Critical Focus Areas of the National Conservation Agenda
 - Pebble Mine
 - Yellowstone National Park native fish conservation
 - Gas & oil development responsibly
 - Clean Water Act
 - Good Samaritan fix via legislation or administration
 - Hardrock mining issues
 - *Climate Change Awareness*
 - Trout Unlimited Capacity

CC NLC Workgroup: A Timeline Review



2015 Climate Change Policy

- A resolution developed by the CCWG led to TU Policy Statement on Climate Change and Responsible Energy Development by the Board of Trustees in 2015

“Climate change poses a **significant long-term threat** to North America’s coldwater fisheries and their watersheds, both by increasing water temperatures in critical habitat areas and by contributing to the frequency and severity of adverse weather events. TU recognizes the powerful connections between our Nation’s energy choices and climate change.

TU understands that avoiding the severe harmful effects that climate change will have on coldwater fisheries and their watersheds requires both a **reduction in greenhouse gas emissions from existing energy production as well as a fundamental shift in energy sources** from fossil fuels to low-carbon technologies and conservation. Accordingly, TU supports policies and comprehensive systems mechanisms that will reduce greenhouse gas emissions and hasten the shift to low-carbon energy sources and conservation.

However, the harmful effects of climate change on coldwater fisheries and their watersheds are already present. Because of this, and the deleterious impacts to coldwater fisheries that are expected as a result, TU’s primary focus has been and will be **to advocate policies and approaches that make communities and landscapes more resilient** to the effects of climate change and to do so in a way that benefits wild and native coldwater fisheries and their watersheds.”

CC NLC Workgroup: A Timeline Review



2016 Policy Foundation Statement for TU Action

- A policy foundation statement for TU action developed by the CCWG was passed by the full NLC and Board of Trustees at the September 2016 Annual Meeting.

“However, there are additional responses to a changing climate that are outside TUs normal **adaptive** responses; namely **to ‘mitigate’** the forces driving climate change, particularly those forces of human origin that humans can potentially alter. By lessening the negative potential of a changing climate through mitigation, adaptation will have a greater likelihood of maintaining and enhancing the cold-water habitats at the core of TU’s mission.

TU’s **support for carbon policies and renewable energy systems** to reduce greenhouse gas emissions in the TU Energy Policy is a mitigation strategy to hasten the shift to low-carbon energy sources and conservation of resources.”

CC NLC Workgroup: A Timeline Review

2018

Climate Change & Trout Presentation

- For use at local meetings.



Climate Change Toolbox

- Compiled into one location, creating a toolbox utilizing the workgroup's NLC page.

Regional Rendezvous Meetings

- Workgroup members presented at Regional Rendezvous

Development of a Volunteer Role Leader Position

- Council Climate Change Coordinator

CC NLC Workgroup: A Timeline Review



2019 Advocacy: Setting the table for Carbon Fee



- February 2018, workgroup hosted Stephanie Doyle from the **Citizen's Climate Lobby**, a bipartisan organization. Their preferred climate change solution, Fee and Dividend, and their work with the Climate Solutions Caucus, a bipartisan group in the US House of Representatives.
- Workgroup reviewed “**Like Minded Groups**” & carbon fees.
- Reviewed/compared current carbon pricing initiatives and how carbon fee and dividend works.
- Collaborated with TU Government Affairs on an **advocacy** strategy, [S. Moyer press release](#).
- December 2018, workgroup hosted Jim Tolbert from **Citizen's Climate Lobby** providing guidance on climate change messaging to conservatives.

2019 Goals

- Continue to grow our climate change awareness campaign.
 - Develop additional material for climate change toolkit.
- Rollout Climate Change Coordinator, a New Council Volunteer Leader Position
- *Rollout a climate change advocacy strategy.*
 - *Support of The Energy Innovation and Carbon Dividend Act HR 763*
 - *Collaboration with Citizen's Climate Lobby.*

Educating, Creating Awareness & Motivating Action



- On TU webpage search “Climate Change” and then click on “Climate Change NLC Workgroup”
- General information on CCWG and how to participate
- Linked information to various types of resources



Climate Change NLC Workgroup

What will the potential of a changing climate have on the cold water resources we all respect and enjoy? Climate Change, and the extent to which it is man-caused, is a divisive issue; the Climate Change Workgroup respects that. We will develop an education and awareness program based upon the scientific background provided by TU Staff and others. With adequate scientific understanding, we all should be concerned about the impacts to our coldwater fishery resources. How much risk should we accept? Can we afford to risk the future of trout and salmon?

[Trout and Climate Change Presentation - with Narrative Audio](#) (2017)

[Trout and Climate Change Presentation - Slides Only](#) (2017)

This presentation was created by the volunteer-run Climate Change Workgroup of the NLC.

[Click here to download a Climate Change fact sheet created by the workgroup and TU staff.](#)

Educating, Creating Awareness & Motivating Action



- TU Policy on Climate Change and Promoting Responsible Energy Development to Protect Cold Water Fisheries
- Climate Change Fact Sheet - a relatively brief summary developed by TU staff and the NLC Workgroup
- Climate Change Frequently Asked Questions



Trout Unlimited Policy on Climate Change and Promoting Responsible Energy Development to Protect Coldwater Fisheries

Scope and Purpose.

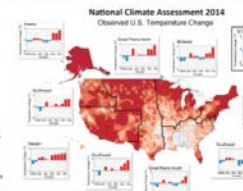
The mission of Trout Unlimited (TU) is to conserve, protect, and restore North America's coldwater fisheries and their watersheds. Central to this mission is the promotion of land and water management that maximizes habitat conservation and minimizes impacts caused by land and water use activities, including the development, construction, operation, and decommissioning of energy projects and facilities. To varying degrees, all energy development has the potential to affect North America's coldwater fisheries and their watersheds. The purpose of this policy statement is to provide guidance for TU's conservation activities as they relate to land and water use associated with energy development, production, transmission and transportation as it affects coldwater fisheries and their watersheds.

TU is uniquely qualified to influence the formulation and implementation of an environmentally sound and responsible energy policy at the national, state, and local levels. TU's more than 150,000 members, most of whom are sportsmen, sportswomen and anglers, have detailed knowledge of local and regional conditions, and a long and successful history in planning and carrying out conservation projects. TU also has a highly qualified and capable professional conservation staff. And TU has a proven track record of science-based analysis using respected tools such as the Conservation Success Index (CSI) for evaluating and mitigating impacts on coldwater fisheries and their watersheds throughout North America. In addition TU has completed an ecological footprint analysis that prioritizes areas suitable



It's here and it's real, what does it mean for our angling future?

Climate change has already begun to alter our nation's lakes and rivers in many of the places you love to fish. Physical and biological systems are responding in kind. As precipitation patterns change and snow melts earlier, watersheds become drier and wildfires grow in frequency and intensity. Peak stream flows occur earlier in the year, base flows are lower, and aquatic insects and fish change their behaviors. This



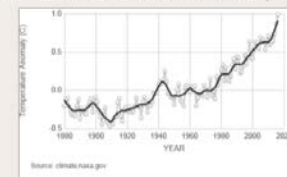
Climate Change FAQ

Here are some frequently asked questions (and answers!) about climate change and their impacts to coldwater fish resources. The following is divided into four sections: general climate change, impacts to trout and salmon, impacts to landscapes and rivers, and getting involved.

General Climate Change

HOW DO SCIENTISTS MONITOR CLIMATE, AND WHAT EVIDENCE IS THERE THAT IT IS CHANGING?

Air temperatures around the globe are monitored by NASA's Goddard Institute for Space Studies, NOAA and others. Global air temperatures have increased steadily since the beginning of the industrial revolution. The longest continually running data set is maintained by NASA and dates back to 1880 as shown below. According to the NASA data, which is consistent with NOAA and other records, 16 of the 17 warmest years in the 150-year record have occurred since 2001. 2016 was the hottest year on record, which broke the previous record high annual temperature average established in 2015. The average global air temperature is about 1°C or about 1.9°F warmer as compared to the 1951-1980 average.

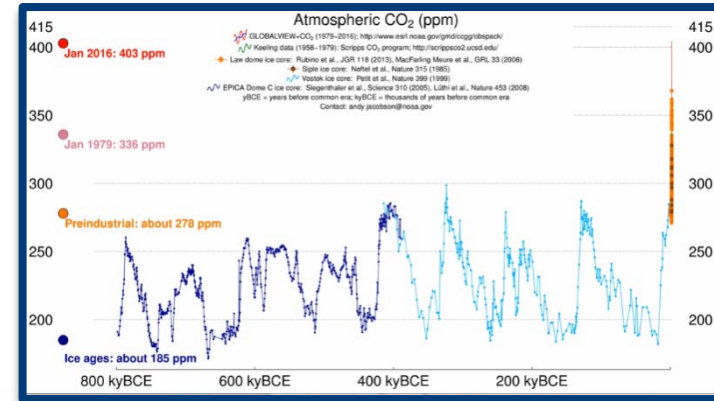


Global air temperature anomaly as compared to the base of 1951 to 1980. Data from NASA's Goddard Institute for Space

Educating, Creating Awareness & Motivating Action



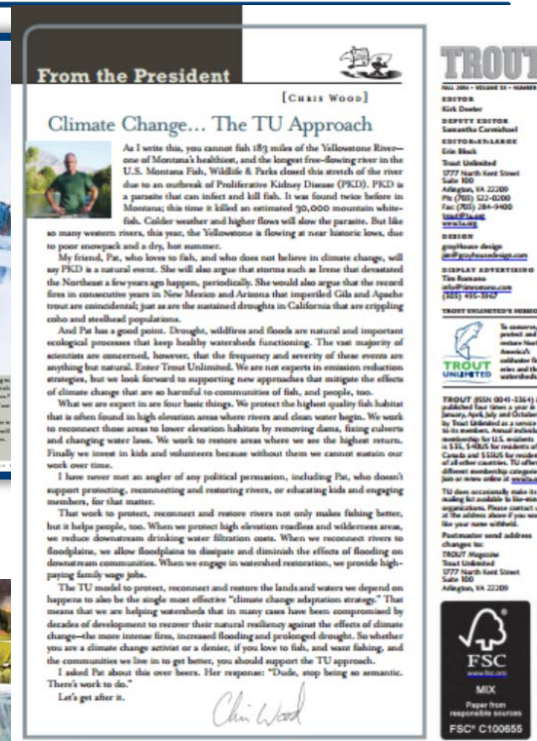
- NLC Climate Change Power Point Presentation (requires MS Office or pdf version)
 - Available to use for meetings
 - 23 slides and comes with and without narration
 - There is also a version with notes



Educating, Creating Awareness & Motivating Action



- TROUT Magazine Article
 - Fall 2016
 - TU's approach
 - Various focal pieces

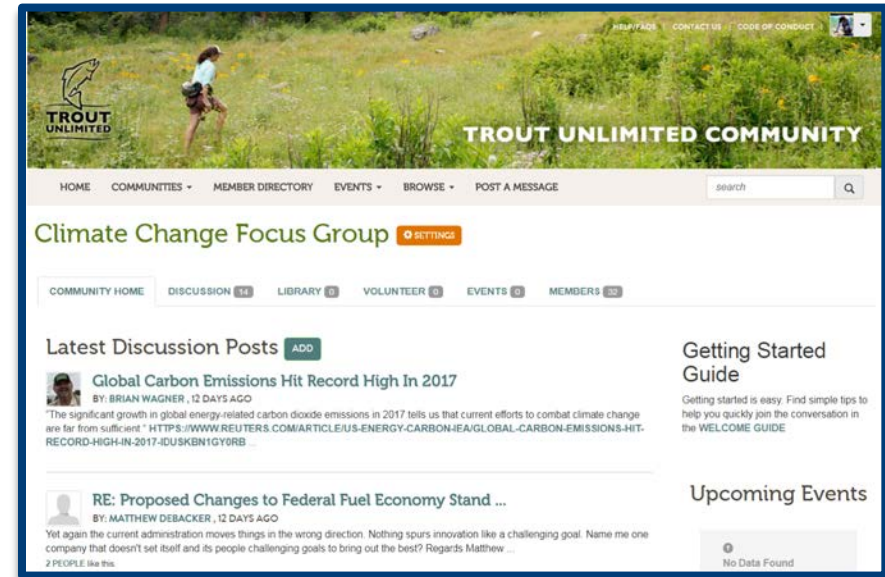


- ☑ Changing climate disrupting phenology up and down the food chain
-
- 
- Leptophlebia spinner*. Jerry Schoen photo.
- By Jerry Schoen
- My introduction to fly-fishing came courtesy of a heavy Hendrickson hatch on the Battenkill River, back in the 1970s. The fish were willing, and it all seemed easy - an impression corrected over the next several days of trial, error and inconsistencies in weather, the behavior of emergent insects and the varying path of rising trout. In the decades

Educating, Creating Awareness & Motivating Action



- Climate Change Focus Group
 - A forum for member discussion and exchange
 - To join click [here](#). After establishing an account, to request to join the online Climate Change Focus Group, please email [Brian Wagner](#), CCWG Chair.



Educating, Creating Awareness & Motivating Action

- Reduce use of fossil fuels
- Support renewable energy
- LEDs, Thermostat, Better Mileage
- Less food waste
- Eat more plant-rich diet
- Recycle what you can
- Support the dynamic relationship between pasture, grassland and trees creates greater carbon sequestration, more water retention, less if any erosion, and more biodiversity. **TU's MISSION**
- Advocate for reasonable political action
- **Talk about it!**



Figure 1. The ecological footprint is a measure of the load imposed by a person on nature. This load is defined as the amount of land—the footprint—needed to sustain the person's level of resource use and waste discharge. (Source: Environment Waikato of New Zealand.)

Climate Change Coordinator

A New Council Volunteer Leader Position

Position Description:

- Communicate a consistent TU science based message on CC, raising awareness & advocating a TU position, is the primary responsibility of this role.
- Good communication skills and a basic understanding of CC is beneficial in this role.
- Aspects of climate change can still be divisive, is imperative to be respectful of other's opinions.



Climate Change Coordinator



Benefits of developing a Council Climate Change Coordinator role:

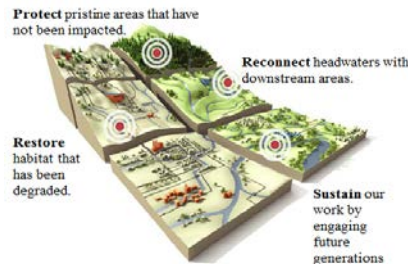
- Support TU's Climate Policy of *reducing greenhouse gas emissions* by shifting from fossil fuel to low carbon energy sources and conservation.
- Strengthen cross-functional *communication* of climate change education/*awareness* throughout the organization with an emphasis on consistent messaging based on *best available science*.
- Position the organization as a *nonpartisan sportsmen's voice* on climate change adaptation and mitigation issues.
- Potential to bring non-traditional *members* to the organization.

Climate Change Coordinator



Climate Change Coordinator can help the council/chapter:

- Coordinate with your Conservation Chairs to *design features into habitat projects* (e.g. Riparian plantings) that incorporate measures to slow climate change and adapt to the harmful effects such as temperature and rainfall extremes.
- Incorporate *climate change awareness* into fishing and habitat events by providing *press releases, project signage and flyers*.
- Incorporate climate change into your council/chapter's *strategic plan*.



Climate Change Coordinator



Some activities might be:

- Show members the tools and resources on the *NLC Climate Change Workgroup page* during a meeting and include in a newsletter.
- Share and like Trout Unlimited climate change awareness posts, including blogs, on *social media*.
- While at the stream *engage in casual conversations* to express your concern with higher temperatures and flood /drought extremes on fishing.



The Energy Innovation and Carbon Dividend Act HR 763



Our work to build resilient watersheds and fisheries is not enough. Substantial carbon emissions reduction --getting at the root of the problem--is an essential part of the equation.

- HR 763 is **bipartisan** and effective at reducing emissions.
- The bill proposes to put **a fee on fossil fuels** like coal, oil, and gas. The fee starts low, and would grow over time. This will drive down carbon pollution because energy companies, leading industries, and American consumers will move toward cleaner, cheaper options.
- The **fees collected on carbon emissions will be allocated to all Americans** to spend any way they choose. The identical bill, S. 3791, was introduced in the Senate in 2018.
- This bill would create 2.1 million new jobs, thanks to economic growth in local communities across America. Most importantly, **it would yield a 40% reduction in carbon emissions** over the next 12 years.

The Energy Innovation and Carbon Dividend Act HR 763



Energy Innovation AND Carbon Dividend Act

THE BIPARTISAN CLIMATE SOLUTION

H.R. 763

This bill will drive down America's carbon pollution
and bring climate change under control. It is:

EFFECTIVE



**GOOD FOR
PEOPLE**



**GOOD FOR THE
ECONOMY**



**REVENUE
NEUTRAL**



The Energy Innovation and Carbon Dividend Act HR 763



Here is why we need Congressional action now -- climate change has already begun to alter our nation's lakes and rivers in many of the places we love to fish and recreate.

- **Air temperatures around the globe have increased** significantly in recent years. The U.S. is no exception to these trends. U.S. average temperature has increased by 1.3°F to 1.9°F since record keeping began in 1895; most of this increase has occurred since about 1970. The most recent decade was the nation's warmest on record.
- For many parts of the western U.S., **drought and increasing air temperature are spelling trouble for trout**. Many rivers like the Madison in Montana approach stressful temperatures more frequently. Habitat for the Rio Grande cutthroat trout is being hit particularly hard by drought in Colorado and New Mexico.
- **Glaciers are disappearing across the West, and with them, the cold melt-water** on which native trout such as bull trout and westslope cutthroat depend. At the current melt rate, glaciers will have disappeared from Glacier National Park by 2030, which will directly affect downstream fisheries.

The Energy Innovation and Carbon Dividend Act HR 763



Here is why we need Congressional action now -- climate change has already begun to alter our nation's lakes and rivers in many of the places we love to fish and recreate.

- Since the mid-1980s as **forests have dried and tree mortality has increased**, there has been a marked increase in the duration and intensity of wildfires in the western U.S. In 2012, the Whitewater-Baldy Fire Complex roared through the core of remaining Gila trout habitat in New Mexico and destroyed several populations.
- Impacts are being documented nationwide. **Eastern native brook trout are showing evidence of climate impacts**, with delayed fall spawn-timing and fewer redds being constructed as temperatures increase.
- Cutthroat trout across the West, for example, are **expected to lose more than 50% of their remaining** habitat by 2080.

Why Citizens Climate Lobby (CCL)?

Nonpartisan

We build relationships with everyone, even those who oppose us.

Nonprofit

Volunteer driven organization with 501c(3) and 501c(4) status.

Solution and Laser Focused

We are for a solution:
Federal Carbon Fee and Dividend Program

Respect, appreciation and gratitude

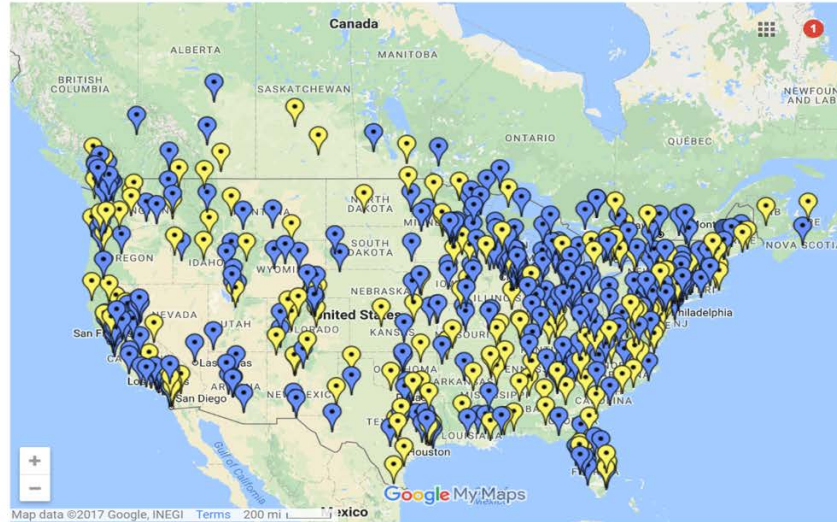
We treat everyone with respect, appreciation and gratitude.



Citizens' Climate Lobby

Collaboration with Citizen's Climate Lobby

CCL Chapters in the United States – 450+



Collaboration with Citizen's Climate Lobby



Levers of Political Will

These are the five core activities that all Citizens' Climate Lobby [chapters](#) leverage to bring citizens into the political process and to ensure their contribution is constructive and makes more good possible. We call these activities the “levers of political will.”

1. **Lobbying:** We train citizens how to lobby in support of our [Carbon Fee and Dividend proposal](#) by building friendly relationships with our federally elected representatives.
2. **Media relations:** We train citizens how to engage with and influence the media. We write [letters to the editors and op-eds](#), meet with editorial boards and work to place stories in all forms of media.
3. **Grassroots outreach:** We recruit and educate the public on climate solutions, citizen advocacy and how to participate with one's government.
4. **Grasstops outreach:** We seek to educate, build partnerships with and gain the support of community leaders and non-governmental organizations, both nationally and locally.
5. **Chapter development:** It is through the growth and management of the [local CCL group/chapter](#), that it becomes possible to push on the other four levers for building political will.



Annual Conference and Lobby Day
and Congressional Education Day

In Conclusion: What You and Your TU do

- Our Protect-Reconnect-Restore strategy is the single most effective climate change **adaptation** strategy
- Helps to recover the **natural resiliency** of these systems
- Helps buy time to create the **socio-political will** to address CC's root causes



Thanks, for more info
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