

SRRR



**Sustainable & Resilient
Resources Roundtable**

**Proceedings of the SRRR Workshop
March 8, 2021 featuring
Preview of The Global Freshwaters Virtual Summit
April 19-23, 2021 <https://globalfreshwaterssummit.org>**

Background on the [Global Freshwaters Summit](#)

The Mississippi River runs through the heart of America, providing the freshwaters that nurture life, land, economy from the Headwaters in Minnesota to the Gulf Sea in Louisiana. We are deeply aware, especially today, how the health and availability of clean and abundant freshwater impacts the health and well-being of us all, especially the river communities through which it flows.

The Summit will be held “at” the Missouri History Museum on their virtual platform in partnership with their exhibit The Mighty Mississippi—a compelling and historic walk-through life along the river that reminds us how deeply we exist and prosper in relationship with the river. Sessions will cover five topics: State of the River, Governance, Protecting the River, Food and Agriculture, and Lifestyles in Harmony with Nature -- with an attention to cross cutting themes of health and well-being of the river in confluence with the human and natural systems it sustains. [Activating the will of people, community and leaders toward restoration of our freshwater biomes is a stated objective.](#)

The Summit includes moderated panels of presenters from local, regional, national and global leaders to weave the story of our connection and our shared responsibility. This includes speakers from: America’s Watershed Initiative, American Rivers, Saint Louis Zoo Institute on Conservation Medicine, Washington University School of Medicine, the Mississippi River Cities & Towns Initiative, the Earth Law Center, the Gulf Coast Center for Law & Policy Institute, Waterkeepers Alliance, regenerative farm and food justice movements, and the Missouri Botanical Garden’s Earthways Center on sustainability.

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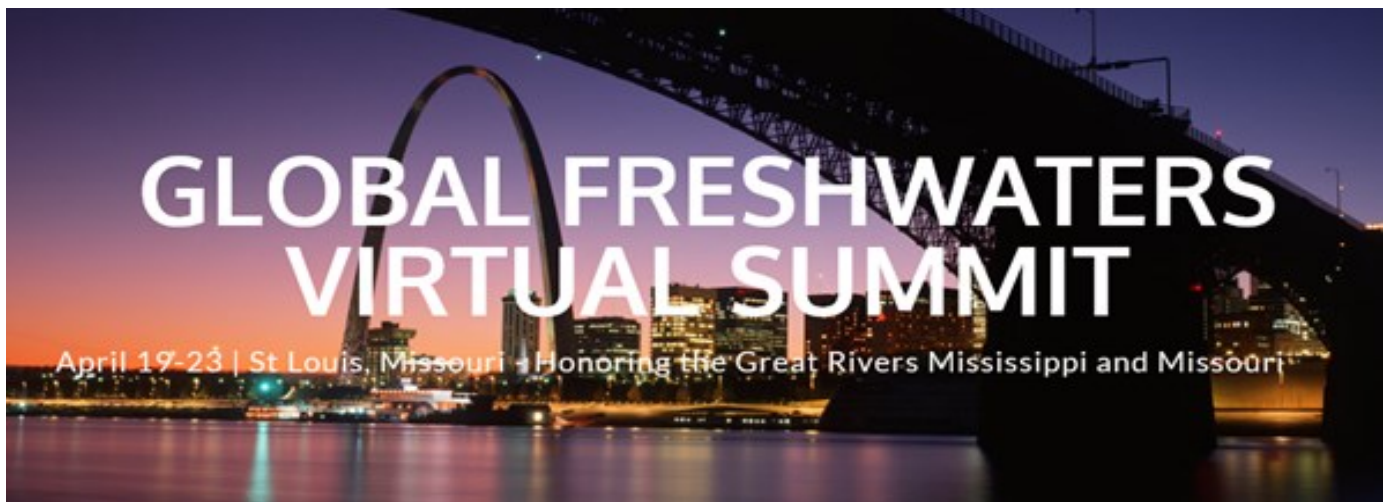
Welcome and Introduction to the Sustainable & Resilient Resources Roundtable

David Berry welcomed the participants and thanked the organizers of the Global Freshwater Summit for providing a preview of the key ideas that will be explored. He outlined the history of the Roundtable as part of a federal advisory committee and then a non-profit charity. He said the roundtable mission is to promote sustainability and resilience of resources critical to ecosystems and communities that depend upon them.

Increasing the level of ecosystem and community sustainability and resilience requires an understanding of the science underlying ecosystem functioning and addressing challenges in policies, programs, and practices. This requires changing our behaviors as individuals, communities, businesses, organizations, states, and nations. Collaborative research and sharing common solutions can optimize resources and accelerate positive change. If we see challenges at local and regional levels as a way to find better solutions at larger scales, we can create pathways for meaningful action.

The roundtable works to achieve this through engaging knowledgeable people and partners from the business, government, academia, and nonprofit sectors. We provide a forum in which the participants can learn from each other to improve their understanding, management, utilization, preservation, and restoration of ecosystems, and the services they provide to communities.

Overview of the Global Freshwaters Summit

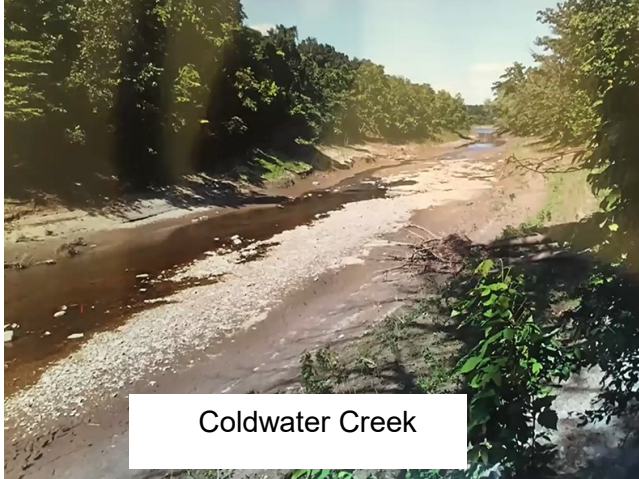


Myra Jackson, Founder, Global Being Foundation, introduced the host partner of the Summit – the Missouri Historical Society. She said the Summit will speak directly to people and is not limited to experts sharing their ideas. It is also about connecting to the essence or heart of our relationship to the biosphere and the biome of the Mississippi River connected to 32 States.

Myra invited the participants to feel what is being created in this Summit, a conversation including a bigger context than the one in which the problems we face arose. Viewing the whole biome is such a broader context that can bring us into a new relationship with the earth.

Status of the River

Co-host of the Summit, Laura Maddened her deep connection to the river identity and heritage. Laura talked about the impacts of toxic and radioactive waste from manufacturing the atomic



Coldwater Creek

bomb and other industries on Coldwater Creek which flows into the Missouri River just above the confluence with the Mississippi. She grew up near the creek and her mother and two siblings died from cancers from the toxic waste.

The idea for the Global Freshwaters Summit grew out of the personal connections to the rivers that many of the organizers have. The conversations began in 2019, while visiting the confluence of the Missouri and Mississippi during major flooding.

Missouri Historical Society – Summit Partner:

Lindsay Newton, Director of Education & Community Engagement, Missouri Historical Society

The Missouri Historical Society has been collecting stories of the past for 150 years. The MHS serves as the confluence of historical perspectives and contemporary issues to inspire and engage audiences in the Saint Louis region and beyond. A current exhibit on the Mighty Mississippi presents the history of the river and includes messages on sustaining surrounding communities and the need for clean and abundant water, issues like flooding and community response and the role of women.



EarthWays Center: the sustainability division of The Missouri Botanical Garden:

Jean Ponzi - Green Resources Manager, EarthWays Center

Jean explained that the Missouri Botanical Garden is one of five institutions in Saint Louis that make up the Zoo Museum Tax District supported by the city and county tax base.

Plants -- The Missouri Botanical Garden,
Animals – The Saint Louis Zoo,
Science – The St Louis Science Center,
Art -- The Saint Louis Art Museum, and
History – The Missouri History Museum

There is a lot of green activity in the Saint Louis area. Jean said it has been a challenge to talk about water in the region since the public view is that this is a water rich part of the continent and fourth largest watershed in the world. Energy and recycling get more attention but with water being such a vital resource it also needs to be in our awareness.



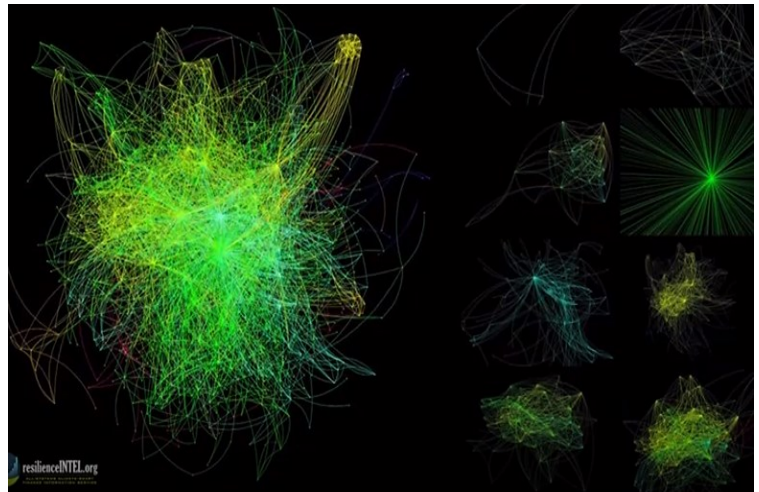
Jean said people learn to maintain good relations among all the green players in town because over time they work with each other in ways they had not foreseen.

American Watershed Initiative:

Joe Robertson, Executive Director, Citizens' Climate International

Joe reminded us that hidden costs and environmental externalities need to be included in decision-making. An example is stresses to food systems and breadbasket failures. Unsustainable practices in agriculture increase toxic and nutrient runoff which raises the costs of municipal water treatment.

Geoversiv and the Resilient Intelligence Initiative: 14 indicators of resilience mostly in natural systems - resilienceintel.org. WEAVE: Whole Earth Active Value Economy. The United States as a whole is represented by the large starburst intersection of all the indicators. Global Corporations (The faint small graph on the upper right) have the lowest resilience to major shocks such as Covid since they are focused on so few variables.



The complexity of natural Systems and the way they interact with us is an operational reality that can be mapped and can be understood even though we have often left these things out of our calculations historically and we don't count these things in our national budget projects or in the way plan investment and return on investment.

We can not only benefit from connecting earth science data to financial and socioeconomic and other kinds of data but we can also benefit from connecting upstream and downstream communities. For example, the headwaters communities might be able to attract investment from downstream communities to invest in cleaner water in the water biome. Resilience building activities are inherently more valuable investments that benefit everyone.

We think the climate system is a geophysical fabric that manifests our ethical connection to each other. We think of ethics as a metaphysical space but the biosphere is a geophysical space.

America's Watershed Initiative:
Kimberly Lutz

America's Watershed Initiative was established in 2009 under guidance of The Nature Conservancy. It is a collaboration involving 400 organizations and represents all sectors and states of the Mississippi River.

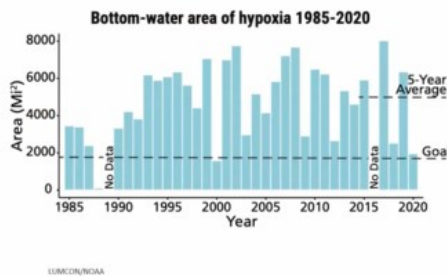
The 2020 Miss River Report Card looks at all sub-basins of the Mississippi River



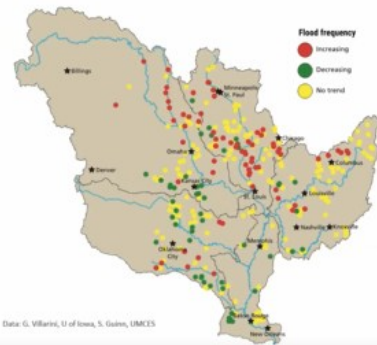
WATER QUALITY IS DECREASING

GULF OF MEXICO DEAD ZONE

- Gulf of Mexico Dead Zone size is almost three times the Hypoxia Task Force target.
- Annual nutrient loads increasing at key locations, despite nutrient reduction strategies.
- Municipal Water Supplies stressed by high nutrient concentrations.



FREQUENCY OF FLOODING IS INCREASING



- Frequency of Flooding is increasing in most areas, especially in tributaries.
- Bonnet Carré Spillway opened 6 times in the last decade.

The report card looked at the overall health of the Mississippi watershed, the Gulf of Mexico Dead Zone, the trends in flooding and water quality and many other variables.

Next steps


- i. Elevate champions
- ii. Integrated Watershed Planning
- iii. Communication and Measurement

Water Reporter:

John Dawes, Executive & Cofounder, Chesapeake Commons (501C3 SW development shop)

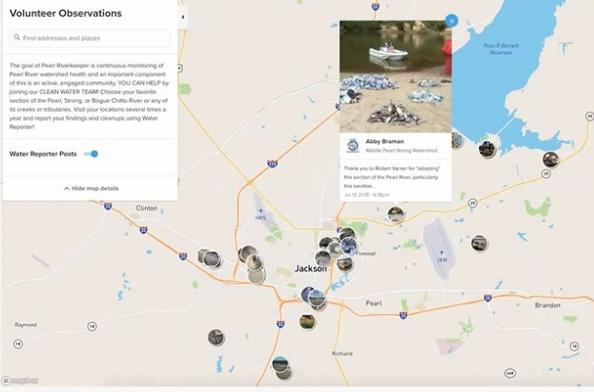
John began by telling us about the grass feed Blank Angus beef farm and the sustainable practices that improves water quality on a stream that flows through the farm for the benefit of people and the ecosystems downstream.

USE CASE




Pearl Riverkeeper Clean Water Team

- Eyes and ears of the waterways
- Community identified trash cleanup
- Outfalls screening blitz to identify facilities discharging outside permitted time frames
- Time stamped, location stamped

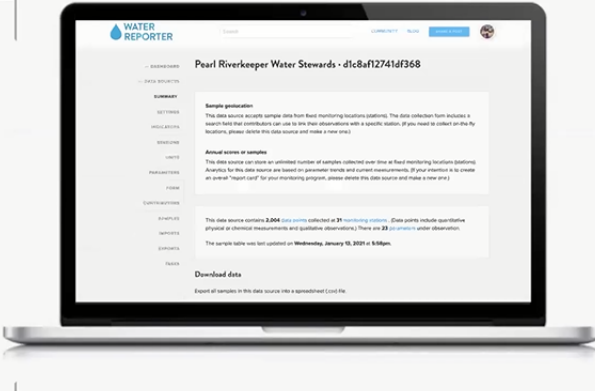


The Chesapeake Commons is focused on quantifying the impact of water quality. A team of engineers and software developers has built relationships with thousands of water quality monitoring and small watershed organizations across the nation.



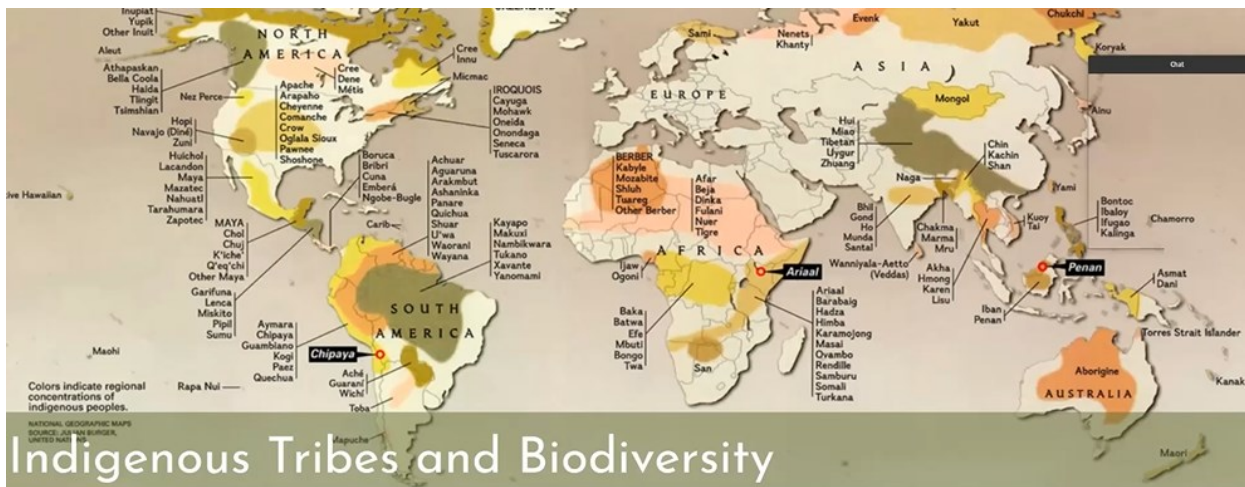
Platform elevates Volunteer Monitoring Programs

- Supports the unique needs of community monitoring groups
- Enables WQM data to be easily managed, structured, and accessible
- Provides visualizations and an API for data integration



The environmental movement is decades behind the corporate sector in the use of data. So the Commons has developed a community based web platform to present qualitative information on the watersheds. They empower users to share data with federal and state data hubs. The Commons also makes federal and state data readily accessible, simple and interoperable working with the Internet of Water at Duke University, The River Network CUAHSI and other collaborative efforts. They host the Water Data Collaborative and represent over 6000 small watershed organizations.

Dashboard – Dynamiculture on the Blockchain: Holly Grimm



- Indigenous people make up 6% of the global population and 15% of the extreme poor
- Traditional Indigenous Territories encompass up to 22% of the world's land surface and 80% of the planet's biodiversity

Holly began by sharing the importance of Indigenous links to sustainability such as the traditional farming of her Diné grandparents and success stories from some Tribes such as the Yurok who repurchased 100,000 acres of traditional tribal lands and are repaying the loan with carbon offsets as the Tribe works to protect salmon.

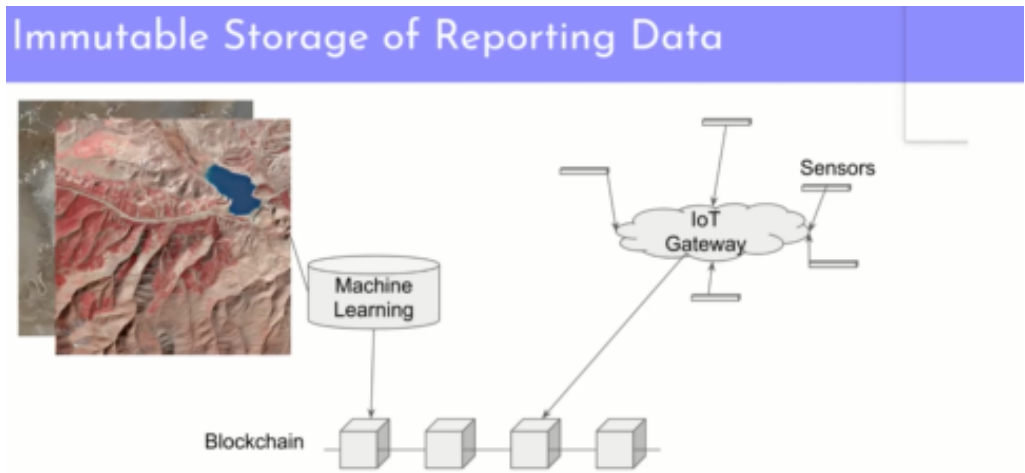
Holly described using a machine learning model to detect stream flow on small streams using satellite imagery. On the Navajo Nation there are about 500 abandoned uranium mines and Holly is interested in using machine learning to detect gamma rays from the radiation hotspots to enable remediation.

We need open accessible and usable data and use of blockchain to store data and allow public access with no masking or manipulation of data.

The local groups could form a decentralized autonomous organizations using the block chain.

Holly and her partner are working on the development of a Dashboard on the blockchain with data on water usage, CO2, solar, wind capacity, cultural projects etc.

They plan a workshop late in 2021 and then deploy the Dashboard in a test community.



American Rivers:

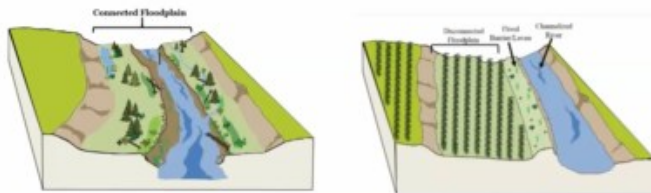
Eileen Shader, Director River Restoration

The goal of the National Floodplain Restoration Program is to promote equitable, integrated, flood management that prioritizes natural infrastructure. Eileen said she works at the confluence of river conservation and floodplain management communities, in different levels of government we've siloed our river management and flood management and the two groups sometimes don't talk to each other even though they work on the same ecosystem. A goal is to break down the siloes to support collaboration and build capacity of water organizations around the country.

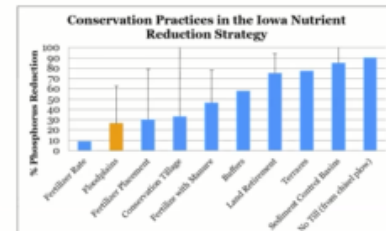
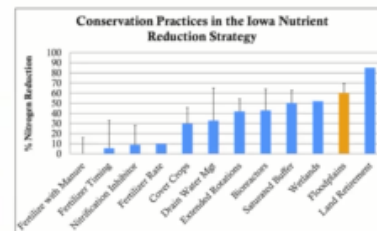
American Rivers works on protecting wild rivers, restoring damaged rivers and conserving clean water.

WHAT IS A FLOODPLAIN?

The land adjacent to a river, creek, or ditch that can become inundated with w



FLOODPLAINS IMPROVE WATER QUALITY



Floods are part of a river's process but they cause damage so we try to control them to keep water in the channel but levees can break and have devastating consequences.

Earth Justice:

Debbie Chizewer

Earth Justice is the largest environmental legal nonprofit. Lawyers, lobbyists staff scientists, communications and development professionals, work out of 14 offices across the United States. Earth Justice brings litigation and undertakes advocacy across three program areas: Healthy Communities, Land Wildlife and Oceans & Lakes, and Climate and Energy.

In the Midwest the two main areas of focus are

1. Environmental Justice in the Detroit, Chicago land, and St Louis Areas dealing with failing sewage and stormwater infrastructure and legacy environmental issues of coal, and refineries. The problems reflect a failure to invest in infrastructure and a failure to adapt to changing circumstances. Earth Justice is building partnerships in the regions to work on these issues.
2. The intersection of environmental justice, climate and energy and wildlife. By engaging in work at this intersection the Midwest office of Environmental Justice can have a bigger impact. An example of this approach is a pipeline fight in partnership with the Bay Mills Indian Community against Enbridge which has a pipeline in Wisconsin and Michigan that runs on the bottom of the Straights of Macinac, the connector between Lake Michigan and Lake Huron. It is very concerning because the pipeline is almost 70 years old and decaying. There is a huge effort to shut down the pipeline to protect the lakes. Over 50% of the Bay Mills community relies on fishing.

Sustainable food and farming is also an important issue with which Earth Justice is becoming engaged.

International Rivers:

Monti del Mar

International Rivers was created about 30 years ago in response to the impacts of large dams. The organization has offices in Oakland, Brasilia, Bangkok, Pretoria, Delhi, Washington DC and Melbourne.

The mission broadened to include advocacy against clearing tropical forests and the protection of rivers and people that live along rivers. They work with American Rivers and seek to learn from environmental legislation in the US such as the Clean Water Act.

They are involved in the Universal Declaration of the Rights of Rivers.

Legal Support for Environmental and Sustainability Programs:

Marsha Moutrie

Marsha became involved in the Global Freshwaters Summit through her connection to Myra and Laura. Marsha spoke at Earth Day at the United Nations a few years ago where she met Myra and later Laura. She provides legal support having been the City Attorney of Santa Monica for 22 years. There, Marsha worked with the city's environmental programs and supported the city's Sustainability Rights Ordinance.

This environmental work needs to be a work of the heart in addition to legal, scientific and activist work. People need to learn to relate to the environment with their hearts. We also need effective political organizing.

Myra said she asked Marsha to write the first People's Resolution honoring the Mississippi River.

Earthday 365:

Bob Henkle

After years of launching Earth Day events and other festivals Earth Day 365 is working to make Earthday every day. They work with community partners on creek clean-up, litter clean-up, food waste and other issues.

Now they are shining a light on people and projects that have been forgotten or ignored and supporting them in having more visibility. These groups include rain water capture, plastic waste and many local issues. They are working to put local data on an app. They also created a Green Dining Alliance to support restaurants that are doing sustainable practices.

A Red Circle:

Erica Williams

A Red Circle is a not for profit organization based in North St. Louis County. The group works on improving the food system for local communities. This includes production, processing transporting, marketing, purchasing and getting the food into areas in the region where people can access it more easily. They also get involved in preparing food and the impacts on the environment of the stages of the food system. Erica said A Red Circle collaborates with other organizations in the area and had built relationships with local farmers as well.

Listening Inspires:

Charlotte Dufour, Food Systems Summit Dialogue Support and Founder of Listening Inspires

Listening Inspires is a recently registered non-profit. Many of the organizers are professionals in the field of sustainable development and environmental protection who felt that often missing in the core of the work is the importance of reconnecting – to each other, to nature, to the waters.

Charlotte's personal field is in food and agriculture which currently involves supporting a team working on the United Nations Food Systems Summit which the Secretary General has called for in September. It is an unprecedented process engaging stakeholders all over the world and aimed at being a people's summit. She also supports a global event on water and food systems with the UN Water Alliance in April.

We have a unique opportunity to contribute to game changing decisions. Some essential ingredients for those decisions include the Golden Rule which brings us back to ethics: treat others and the planet as you wish to be treated. They are hosting a dialog on what is needed. At the heart of this is listening and being courageous to take actions to connect to one another.

The Summit will include moments of connection to each other and to the waters and the put the SDGs into this context.

Missouri Stream Team Water Coalition:

Mary Culler, Director

NE Missouri two hours NW of St Louis near both Mississippi water Missouri

The Missouri Stream Team Water Coalition is a non-profit formed 20 years ago to support stewardship, advocacy and education for Missouri's rivers and streams. They do that by promoting citizen involvement through encouraging them to adopt their local stream or section of river.

Tree Sisters:

Suzi Steer

Tree sisters connects to local, international community groups and national and international NGOs, particularly those with a focus on restoration, reforestation and conservation.

Tree Sisters emphasizes social change and reforestation mainly in the tropics. Working with local partners they have planted 17 million trees across the tropics. Trees provide water purification as they send evaporative water into the atmosphere. On the average, full grown trees need 15 gallons per day for themselves and they putt up between 200 to 450 gallons a day into the biosphere. They contribute to soil stability in the tropics.

Tree sisters is also interested in the ethics and values that go into the effective long term care of trees and the ecosystem.

Films for the Planet. and Environmental Journalism:

Don Shelby

Don has had a 55-year career in journalism, the last 30 of which was spent on climate change and environmental policy. He is the co-host of Geoversiv Earth Intelligence, an action-oriented exploration of Earth Intelligence, Climate Resilience, Food Security and the economics of a future without pollution. It serves to push leverage healthy natural systems and rights of nature as solutions to the climate crisis.

Don said he is representing Films for the Planet. Part of the Summit will be a virtual film festival with 15 films. There will be moderated discussions and questions.



Don closed by saying, “Nothing is more important than the preservation of our waters and the awakening of people to understand that we are of Nature and that we have to participate with Nature and listen to Nature. Nature is way smarter than we are. If we follow what Nature is teaching us, we are going to be much better off.”

Adjournment

Myra adjourned the meeting, warmly thanking all the presenters and participants and inviting all to reconvene at the Global Freshwaters Summit, April 19-23, 2021.

<https://globalfreshwaterssummit.org>

April 19-23, 2021