



Climate Change 2022 Report Urges Action Now

On February 27, 2022, the United Nations' Intergovernmental Panel on Climate Change (IPCC) released *Climate Change 2022: Impacts, Adaptation and Vulnerability*. The report is based on over 34,000 studies and summarizes how climate change is already affecting the world's human and natural systems and how we can adapt. The bottom line? A habitable future is a possibility, but the time to act is *now*. Debra Roberts, Co-Chair of the IPCC Working Group II report, said in a briefing that "...we need a whole of society approach, no one can be left out, no household, no businesses, no government..." And that's where we as SURFers come in. We are site owners, consultants, agency representatives, and technology providers (to name a few). Despite the varying perspectives that come with these roles, we can all make concrete changes in the way we work so that the concept of sustainable resilient remediation (SRR) is applied to our projects:

- Incorporate SRR concepts into the existing contracting framework (e.g., task orders) and peer-review process at your organization.
- Integrate SRR principles and practices into requests for proposals and the scope of work of a proposal – *regardless if it is required*.
- Identify and explain the differences in sustainability parameters for different technologies.
- Integrate risk management impacts (e.g., timeframe of risk reduction) when assessing different remedial alternatives.

To access or find out more about the report, click [here](#).



Dive In! Authors Suggest New Paradigm When Selecting Indicators and Monitoring Approaches

Ecological indicators and monitoring approaches are selected by considering factors such as biological species diversity and uniqueness, among others. In a recent publication, Burger, et al. urge ecologists and project managers to take a similar approach when selecting indicators and monitoring approaches for ecological and human environments. Rather than assessing these environments separately, the authors reason that one assessment that integrates indicators such as diverse cultural and environmental injustice disparities and health issues is more appropriate. The article, “Combining Ecological, Eco-Cultural, and Environmental Justice Parameters to Create Eco-EJ Indicators to Monitor Cultural and Environmental Justices for Diverse Communities around Contaminated Sites” was published in *Environmental Monitoring and Assessment* (click [here](#) for the abstract).



**WORLD
ENGINEERING
DAY HACKATHON**

Did You Know? New Wastewater Treatment Technology Developed by University Students

On March 4th, the all-woman WonderPETs (polyethylene terephthalate) team from Batangas State University (Philippines) won the 2022 World Engineering Day Hackathon. Students RJ Bool, Ghia Luwalhati, and Nicole Tan developed a new approach to produce a wastewater treatment absorbent that reduces costs, eliminates toxic reagents, and minimizes energy requirements. The event was hosted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO), and WonderPETs beat out 120 other teams from over 20 countries with their novel approach. The approach produces metal organic frameworks (MOFs) in a more sustainable manner than conventional methods. Because MOFs have a “breathing ability” that allows them to hold guest molecules and release them when external stimuli are applied, they can remove a range of pollutants in wastewater. The WonderPETs' approach involves recycling waste PET in the form of recycled plastic bottles, using microwave depolymerization to extract terephthalic acid, and using water as a solvent and ambient conditions. Using this method, the WonderPETs team successfully removed dyes from water. Next on the agenda? The team wants to obtain funding from different universities and government institutions and collaborate with the industry to pilot test their technology in an operating wastewater treatment plant. The WonderPETs team is also planning additional MOF research related to other PET-containing waste, the use of metal scraps as a precursor for MOF synthesis, and the creation of MOFs using three-dimensional printing. To watch the video explaining this technology, click [here](#).

Upcoming Events

SURF Webinar: Sustainable Remediation in Africa, Australia, and the U.S.

April 27, 2022

2:00 p.m. – 3:30 p.m. EDT

Registration link is coming soon!

Join us for a panel discussion on the similarities and differences of sustainable remediation implementation and organizations in Africa, Australia, and the United States. Panelists will include representatives from the U.S. chapter of SURF, Australasian Land & Groundwater Association (ALGA), and Network for Industrially Contaminated Land in Africa (NICOLA). Click the button below to subscribe to SURF Break and receive updates.

Subscribe Now!

2022 National Stormwater & Watershed Conference

April 26 – 29, 2022

St. Petersburg, Florida

Sponsored by the Center for Watershed Protection, this conference focuses on how to increase the resiliency of our communities in response to emerging and persistent threats to our water resources. Click [here](#) to register or learn more.
