CREW NEWSLETTER

Issue 1 | November 2020

A MESSAGE FROM OUR DIRECTOR

A very warm welcome to customers, stakeholders, and collaborators !

As for all of us, 2020 has been marked by the many restrictions and challenges of the COVID-19 pandemic but our team and collaborators adapted quickly and strived to provide our services in support of policy with as few interruptions as possible. The last while has seen a number of new CREW reports on water quality, flood management and developing sustainable communities, which we hope that you find both informative and useful. And please don't forget to put the date of World Water Day on the 22nd March 2021 in your diaries. On that day we will welcome the Scottish water community to join us in exploring the value of water to society. Until we all have the chance to meet again, we hope that you enjoy our newly designed newsletter. Stay safe!

KEY DATES

Sniffer Flood Risk Management and Green Recovery, 1st-5th February 2021

World Water Day: Valuing Water, 22nd March 2021 *(Programme forthcoming, see flyer to pre-register)*

THE CATCHMENT TRIATHLON

Tracking the River Dee from Source to Sea

2020 is the Year of Coasts and Waters. To raise awareness, Rachel Helliwell (CREW) and Marc Stutter (James Hutton Institute) walked, ran, cycled and canoed along 145km of the River Dee, Aberdeenshire. As their journey unfolded, from its source at the Pools of Dee in the Cairngorm Mountains to Aberdeen Harbour, they captured the beauty of the catchment in a video discussing pressures that face Scotland's water resources such as climate, land use and demographics change. Check out the film here!

UN WATER
22 MARCH
WORLD WATER DAY

VALUING WATER

SAVE THE DATE

WORLD WATER DAY
22 MARCH 2021

Online Event

PRE-REGISTER NOW!

What is the value of Water?

Value is not just the monetary worth or price of water. What is water's cultural value? How does it contribute to our well-being? How can we collectively respect and manage our most precious resource and the trade-offs we make in our everyday lives?

This online event will welcome the Scottish water community and will include:

- thought provoking presentations from the science and policy communities
- panel discussions including considerations towards the upcoming COP26
- dedicated breakout and networking sessions
- interactive live polls and much more!

You can pre-register for this event here

The event is free of charge and will be recorded. The recording will be made available for those who are not able to attend.

Hydro Nation International Centre | CREW Centre of Expertise for Waters | The James Hutton Institute | Scottish Government Riaghaltas na h-Alba gov.scot

WASTEWATER TESTING FOR COVID-19

A recent CREW project looked into the potential of identifying the presence of COVID19 (by detecting SARS-CoV-2 viral RNA) in wastewater, and whether doing so had the potential to be used to track community infection. The research, led by Dr. Alexander Corsbishley at the Roslin Institute, found that SARS-CoV-2 virus was detectable in certain untreated wastewater samples collected during the initial wave of the pandemic but no SARS-CoV-2 RNA was detected in the treated outflow water. Dr Alex Corbishley explained that "*detecting viral genetic material in wastewater is relatively easy, however the challenge is measuring how much genetic material is present accurately and relating that to disease levels in the community. The support from CREW has allowed us to use our expertise in disease monitoring to inform SEPA and Scottish Water's efforts to develop a Scottish wastewater monitoring programme*".

The project helped create opportunities to leverage a £1million UKRI grant to develop a standardised UK-wide system for detecting coronavirus in wastewater, to provide an early warning of future outbreaks and reduce reliance on costly testing of large populations. Read the press release **here** and access the full report **here**.

WATER WALL

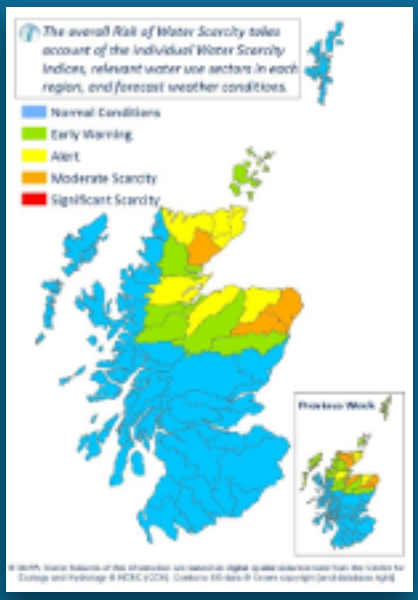
2020 is Scotland's Year of Coasts and Waters!

2020 COASTS & WATERS

To celebrate this, the James Hutton Institute, supported by SEFARI, has created a virtual "Water Wall", an image map of Scotland regarding all things water. Feel free to contribute by adding your favourite water pictures, or just enjoy a virtual tour of Scotland's water world! Find out more here:

waterwalls.hutton.ac.uk

WATER SCARCITY IN SCOTLAND



UKCP climate change projections indicate that Scotland will see more extreme weather events in the future. This may lead to private water supplies being at risk of running dry, a recent **CREW report** has found. This will impact the North East in particular, where the highest density of private water supplies can be found, and rainfall is more scarce in general. Recovering from a drought event can take a long time, and the challenges encountered in 2020 so far exemplify this. After an unusually dry winter and spring, average rainfall levels returned from July onwards. The North East in particular continued to see record low levels of groundwater levels well into the autumn, even coinciding with two flooding events. This shows that flooding and water scarcity can at times be a dual challenge.

Occurrences of water scarcity are likely to increase in the future. Find out how CREW is supporting efforts to tackle this challenge in our most recent **blog** here.

*SEPA Water Scarcity Map from 1st Oct 2020 Water Scarcity Report

RECENT PUBLICATIONS

CLICK ON ANY OF THE REPORTS TO HAVE A LOOK !

CREW

Tracking SARS-CoV-2 via Municipal Wastewater

CREW

Retrofitting Sustainable Urban Drainage Systems to industrial estates

Summary report

Water Quality

CREW

A review of investment decisions at small drinking water supply systems with declining water quality issues

CREW

Evaluating an upland Natural Flood Management hydrometric network: implications for future monitoring

Research summary

CREW

Long-term impacts of flooding following the winter 2015/16 flooding in North East Scotland: Summary Report

Flooding & Coastal Erosion

CREW

Factoring Ecological Significance of Sources into Phosphorus Source Apportionment Phase 2

CREW

Slender Naiad (*Najas flexilis*) Habitat Quality Assessment

Catchment Management

CREW CENTRE OF EXPERTISE FOR WATERS

Private Water Supplies and Climate Change

The likely impacts of climate change (amount, frequency and distribution of precipitation), and the resilience of private water supplies

CREW

Private water supplies and the local economic impacts in Scotland

Sustainable Communities

CREW

Review of monitoring techniques and sampling strategies to identify the most significant sources of faecal indicator organisms (FIO) within a catchment

MEET THE TEAM

Bob Ferrier, Director

Rachel Helliwell, Manager

Linda Wood, PA

Fiona Murray, Finance

Ioanna Akoumianaki, Senior Science-Policy Specialist

Nikki Dodd, Project Manager

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FIND OUT MORE

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CREW CENTRE OF EXPERTISE FOR WATERS

The Centre of Expertise for Waters (CREW) provides evidence-based and policy-relevant research geared towards Scottish water policy. CREW is funded by the Scottish Government and is a partnership between the James Hutton Institute and all Higher Education and Research Institutes in Scotland. Find out more about CREW on www.crew.ac.uk