



## World Water Day 2018 – Nature Based Solutions

### - *6 Ways Wastewater Fits into the Global Plan for Sustainability*

Each year, on March 22<sup>nd</sup>, our global community is “officially” reminded to take some time and give some focused thought toward one of our most precious resources; water. Although we should really be thinking about our use and preservation of water every day, with the busy lives most of us lead, it is helpful to be reminded from time to time. World Water Day plays a critical role in helping us do so.

This year, we are invited to explore nature-based solutions or “NBS” as part of our efforts to address water challenges for the 21st century. UN Water’s campaign for this year is called *“The answer is in nature”*. It’s stated mission is to *“attempt to raise awareness of NBS as a way to help meet the water needs of a growing population”* and *“contribute to the creation of a circular economy, at the same time as helping to protect the natural environment and reduce pollution.”* Both of these are key targets in the achievement of Sustainable Development Goal, number 6, a global commitment to *“ensure the availability and sustainable management of water and sanitation, for all by 2030.”*

Although wastewater is still too often viewed as “waste”, some of us are working hard to change this perception with innovative, safe and efficient solutions for better use of these valuable resources.

Here are 6 ways that properly managed wastewater resources can play a role in this movement:

1. **Scarcity of water.** Salt water is plentiful, but fresh water is scarce. Failing to re-use wastewater, means failing to maximize a valuable resource. Recycling of wastewater, through advanced resource recovery systems that mimic nature, puts much-needed, clean water, back into circulation.
  2. **Energy from wastewater.** Advanced solutions can also be used to spark microbial activity and increase biogas production in digesters at wastewater treatment plants. Biogas can then be converted into an alternative source of green energy to power these facilities and while also reducing greenhouse gas emissions, thereby transforming traditional plants into Resource Recovery Centers (RRC’s). This helps reduce the negative impacts of climate change.
  3. **Fertilizer from wastewater.** With today’s technologies, it is also possible to convert wastewater biosolids into safe, high quality biofertilizers. These products are ideal to return to the earth as part of a natural cycle, there promoting healthy, productive soil and plant life.
  4. **Creating green spaces.** Safely recycled wastewater resources are now also being viewed by many cities as an opportunity to do public good. For example, in some cases, recycled wastewater biosolids are being returned to the earth in public parks so residents can enjoy rare, green spaces. The water and nutrients stay in the community, providing new benefits in their recycled form.
  5. **Lower carbon footprint.** Drinking water can be especially vulnerable to the effects of climate change. Responsible wastewater management helps to minimize these risks by using safe, proven approaches to return or keep carbon in the ground to reduce greenhouse gas emissions.
  6. **Prevent erosion.** Recycled wastewater contains valuable nutrients and organic matter that keep soils healthy. Healthy plants and soils are also able to retain more moisture (i.e. water), thereby reducing the potential for run-off in areas where soil degradation and erosion threaten already-scarce water supplies.
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