

WATER ENVIRONMENT FEDERATION

Title: WEF Nutrients Inside the WRRF Position Statement

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BACKGROUND

Too many nutrients entering waterbodies cause eutrophication, which can lead to harmful algal blooms (HABs) and have adverse impacts to aquatic life, causing problems in recreational, food and drinking water sources. Climate change can exacerbate these effects by intensifying drought conditions, lowering available oxygen, and increasing surface water temperatures. Additionally, severe storms can increase runoff and the transfer of nutrients from land to waterbodies.

Regulated sources, such as Water Resource Recovery Facilities (WRRFs), have historically carried most of the burden for reducing nutrients entering waterbodies. They have significantly invested in process and technological advancements, and infrastructure to reduce nutrient loads in their discharge. This has, in some instances, resulted in higher rate payer and end user costs than a community can afford. This in turn has presented a challenge with affordability, while not always achieving the desired reductions in nutrient loads and waterbody improvements when other sources of nutrients were not also effectively addressed.

At the same time, nitrogen and phosphorus can be limited in soils but critical for plant growth and food supply, and phosphorus is a non-renewable resource at risk of depletion. Nutrients recovered from the liquid stream (like struvite) are fertilizers, while nutrients "recovered" or "sequestered" in biosolids are also available as fertilizers through land application practices which serve the agricultural and water sectors. Additionally, the reuse of treated water from the WRRF may play an important role in not only providing moisture but also in providing needed nutrients.

ALIGNMENT WITH WEF'S MISSION AND CRITICAL OBJECTIVES

Since 1928, it has been the mission of WEF and its members to protect public health and the environment. This position statement is consistent with our mission and the following critical objectives:

- [3a](#): Be a visible and effective partner that increases public awareness of the value of water, water professionals, and resource recovery at national levels;
- [3b](#): Provide tools for members, Member Associations, utilities, and others to communicate the value of water, water professionals, and resource recovery to the public and decision-makers;
- [4a](#): Drive an increase in resource recovery in the water sector;
- [4c](#): Promote the adoption of innovative utility management and financing practices.

POSITION

WRRFs are part of, but not the only, solution to reduce excess nutrient concentrations in watersheds. WRRFs can also recover key nutrients from wastewater and critical that are critical for plant growth and food supply. WEF supports the following:

- Increase awareness of the importance of resource recovery and incentivize WRRFs to continue and grow their contributions to the communities they serve.
- Reduce barriers to the recovery of nutrients from wastewater and support the sustainability and reliability of markets for recovered nutrients containing products.

- Incentivize and invest in the innovation, development, advancement, and deployment of processes and technologies that make nutrient recovery more cost effective.
- Reduce barriers to beneficial use adoption.
- Promote a balanced, holistic, watershed framework of practices, policies, and partnerships that considers and engages all stakeholders, to reduce excess nutrient concentrations in an affordable and timely manner.
- Balance competing priorities of removal and recovery of nutrients, recovery of other products such as carbon and energy, climate change goals that lead to sustainable solutions.