

## John Marshall

The conceptual draft nutrient, i.e., nitrogen, general permit must incorporate source control as a primary strategy to eliminate nutrient pollution, rather than expensive end-of-pipe treatment plant upgrades. Urine contributes eighty percent of the nitrogen, fifty percent of the phosphorus, and but one percent of wastewater flow. Separation of urine can yield a dried solid organic fertilizer or a concentrated liquid. Recover and reuse valuable nutrients in a sustainable manner, while reducing energy use at wastewater treatment plants. Support our communities, reduce climate impacts, prevent pollution, protect our State's waters, and restore Puget Sound.

Ref: Water Environment Research 2015 Dec 87(12) pgs 2120-2129 "Source separation of urine as an alternative solution to nutrient management in biological nutrient removal treatment plants; Elser, J., Bennett, E. A broken biogeochemical cycle. Nature 478, 29–31 (2011); [http://www.novaquatis.eawag.ch/publikationen/final\\_report\\_E.pdf](http://www.novaquatis.eawag.ch/publikationen/final_report_E.pdf). NoMix, a new approach to urban water management.