

**Supplementary Table S1.** Chemical concentrations of raw and treated DWTRs per unit mass of dry sludge.

	<b>Aluminum (Al)</b>	<b>Calcium (Ca)</b>	<b>Iron (Fe)</b>	<b>Magnesium (mg)</b>	<b>Manganese (Mn)</b>	<b>Zinc (Zn)</b>	<b>Total N (TN)</b>	<b>Total P (TP)</b>
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<b>BP-RAW</b>	105,304	3,863	28,365	2,012	4,317	42.19	14,000	789.3
<b>MS-RAW</b>	78,722	6,414	41,470	3,559	21,586	67.26	15,000	845.0
<b>TP-RAW</b>	82,901	4,439	37,131	3,433	1,165	69.36	10,000	1,400
<b>UD-RAW</b>	110,000	4,237	26,210	2,093	6,958	64.06	17,000	4,400
<b>TP-W</b>	86,490	1,864	33,810	1,573	1,483	71.74	3,900	331.2
<b>TP-MW</b>	142,872	5,504	41,193	5,126	1,257	101.00	7,722	711.5
<b>TP-200</b>	108,300	2,009	35,280	1,384	1,373	65.09	9,000	343.4
<b>TP-OL200</b>	154,416	6,384	42,789	5,285	1,336	98.99	8,794	703.9
<b>TP-600</b>	123,600	2,182	39,990	2,402	1,634	96.92	5,100	365.0
<b>TP-OL600</b>	187,245	6,478	49,072	7,820	1,558	113.40	6,226	814.4
<b>TP-MW600</b>	180,868	6,007	48,519	7,885	1,514	98.73	2,453	820.9
<b>UD-W</b>	125,700	1,785	22,050	905	7,011	60.90	13,100	1,221.0
<b>UD-MW</b>	156,341	4,944	25,700	2,572	7,106	85.08	10,075	2,443.0
<b>UD-200</b>	146,500	2,259	20,700	861	7,680	62.05	15,500	1,224.0
<b>UD-OL200</b>	166,647	4,740	27,823	2,784	7,939	86.99	13,699	2,669.0
<b>UD-600</b>	188,000	2,539	30,870	1,785	11,220	96.82	8,600	1,708.0
<b>UD-OL600</b>	215,235	7,140	35,507	5,229	10,148	100.50	10,235	3,744.0
<b>UD-MW600</b>	222,624	6,826	36,536	5,170	10,119	112.00	8,892	3,726.0

**Supplementary Table S2.** Concentration of Al, Fe, and forms of N in wastewater generated during single washing (W). 100 g of dry DWTR was dissolved in 1 L of water (1:10 m/v ratio).

	<b>Aluminum (Al)</b>	<b>Iron (Fe)</b>	<b>Total N</b>	<b>TKN</b>	<b>Ammonia (NH<sub>3</sub>-N)</b>	<b>Organic N</b>	<b>Nitrate (NO<sub>3</sub>-N)</b>	<b>Nitrite (NO<sub>2</sub>-N)</b>
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
<b>TP</b>	3.40	1.86	11.17	11.14	4.18	6.99	ND	ND
<b>UD</b>	22.08	4.83	34.59	34.55	5.85	28.70	ND	ND

ND = not detected

**Supplementary Table S3.** Average mass of nitrogen (N) leached into deionized water (n=3) during leaching tests per unit of dry DWTR mass, as categorized by form of N.

	<b>Total N</b>	<b>TKN</b>	<b>Ammonia (NH<sub>3</sub>-N)</b>	<b>Organic N</b>	<b>Nitrate (NO<sub>3</sub>-N)</b>	<b>Nitrite (NO<sub>2</sub>-N)</b>
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
<b>TP</b>	135.6	134.8	47.9	86.9	0.4	0.4
<b>TP-200</b>	158.6	192.0	75.2	116.8	1.0	0.3
<b>TP-600</b>	114.5	114.0	ND	114.0	0.5	ND
<b>TP-W</b>	297.1	309.6	27.9	281.7	0.9	0.7
<b>TP-OL200</b>	878.8	870.9	252.9	618.0	5.2	2.6
<b>TP-OL600</b>	ND	ND	ND	ND	ND	ND
<b>TP-MW</b>	ND	ND	ND	ND	ND	ND
<b>TP-MW600</b>	ND	ND	ND	ND	ND	ND
<b>UD</b>	407.9	406.9	130.5	276.4	0.7	0.2
<b>UD-200</b>	561.8	596.7	73.6	523.0	0.9	1.0
<b>UD-600</b>	231.7	230.6	ND	230.6	3.2	ND
<b>UD-W</b>	375.4	428.3	108.6	319.7	1.2	0.5
<b>UD-OL200</b>	1432.0	1432.0	426.8	1005.2	ND	ND
<b>UD-OL600</b>	ND	ND	ND	ND	ND	ND
<b>UD-MW</b>	186.4	186.0	ND	186.0	0.2	0.2
<b>UD-MW600</b>	ND	ND	ND	ND	ND	ND

ND = not detected