Table S1. Mean measured chloride and nitrate concentrations for acute toxicity tests with three genetically distinct clades of *Hyalella azteca*, mean measured conductivity values for the tests in which chloride or nitrate were measured, and measured conductivity values for each test concentration for all tests. s.d. = standard deviation, DL = detection limit, na = not applicable

Chloride tests							
Nominal concentration (mg/L)		Control	596	1165	2302	4576	9125
Mean (s.d.) measured [Cl^-]		20 (0)	612 (7)	1174 (3)	2329 (24)	4613 (34)	9338 (129)
Mean (s.d.) conductivity (µS/cm) in tests with measured [Cl^-]		335 (8)	2190 (0)	3997 (9)	7480 (18)	14,123 (13)	27,509 (151)
Clade	Feeding	conductivity at above nominal test concentrations					
CP	fed	365	2225	4055	7590	14,190	27,350
CP	fed	342	2235	4080	7270	14160	27350
CP	fed	341	2285	4130	7645	14235	27300
EC	fed	375	2250	4100	7664	14344	27498
EC	fed	334	2220	4075	7575	14155	27350
EC	fed	350	2315	4150	7734	14285	27399
US	fed	359	2220	4055	7565	14195	27399
US	fed	342	2235	4075	7580	14185	27400
US	fed	328	2300	4160	7645	14285	27350
CP	unfed	329	2190	4010	7490	14135	27649
CP	unfed	362	2230	4085	7625	14240	27300
CP	unfed	359	2250	4130	7670	14335	27499
EC	unfed	329	2190	3990	7495	14130	27579
EC	unfed	364	2250	4085	7635	14230	27350
EC	unfed	363	2265	4165	7670	14375	27549
US	unfed	346	2190	3990	7455	14105	27300
US	unfed	365	2318	4124	7615	14290	27200
US	unfed	349	2250	4120	7645	14310	27400

Nitrate tests							
Nominal concentration (mg/L)		Control	71	141	282	565	1129
Mean (s.d.) measured [$N\text{-}NO_3^-$]		<DL (na)	73 (3)	143 (6)	280 (9)	582 (25)	1163 (39)
Mean (s.d.) conductivity (µS/cm) in tests with measured [$N\text{-}NO_3^-$]		351 (7)	933 (10)	1514 (25)	2631 (56)	4,744 (31)	8,967 (113)
Clade	Feeding	conductivity at above nominal test concentrations					
CP	fed	355	954	1543	2650	4840	8805
CP	fed	344	949	1531	2675	4780	8835
CP	fed	355	937	1513	2595	4785	8900
EC	fed	375	954	1555	2679	4830	8850
EC	fed	376	954	1530	2655	4795	8870
EC	fed	366	947	1549	2639	4829	8949
US	fed	354	952	1537	2645	4805	8845
US	fed	346	945	1525	2635	4800	8835
US	fed	360	939	1521	2610	4804	8890
CP	unfed	332	922	1493	2590	4740	8820
CP	unfed	355	935	1506	2610	4715	8905
CP	unfed	367	954	1535	2670	4810	8934
EC	unfed	340	923	1493	2610	4790	8983
EC	unfed	356	925	1496	2570	4710	8825
EC	unfed	357	956	1540	2660	4845	8905
US	unfed	344	932	1513	2630	4770	8959
US	unfed	359	951	1563	2735	4735	9164
US	unfed	356	949	1533	2660	4820	8835

Table S2. Percent survival of amphipods at nominal test concentrations for 96-h acute toxicity tests with three distinct genetic clades of *Hyalella azteca*, two toxicants, and two feeding conditions.

Clade	Toxicant	Feeding	nominal test concentration (mg/L)					
			Control	596	1165	2302	4576	9125
Clear Pond	Cl	Fed	100	100	95	25	0	0
	Cl	Fed	100	95	95	50	0	0
	Cl	Fed	85	95	100	45	0	0
Burlington	Cl	Fed	95	100	100	10	0	0
	Cl	Fed	95	95	100	5	0	0
	Cl	Fed	100	95	85	30	0	0
US Lab	Cl	Fed	100	100	100	85	0	0
	Cl	Fed	100	100	100	95	0	0
	Cl	Fed	100	100	100	90	0	0
Clear Pond	Cl	Unfed	90	90	65	10	0	0
	Cl	Unfed	90	80	45	0	0	0
	Cl	Unfed	75	85	50	10	0	0
Burlington	Cl	Unfed	100	100	100	0	0	0
	Cl	Unfed	95	90	80	5	0	0
	Cl	Unfed	95	95	75	10	0	0
US Lab	Cl	Unfed	100	100	100	85	0	0
	Cl	Unfed	100	100	100	90	0	0
	Cl	Unfed	100	100	90	90	0	0
			Control	71	141	282	565	1129
Clear Pond	$N\text{-}NO_3$	Fed	100	100	100	100	70	0
	$N\text{-}NO_3$	Fed	100	100	95	95	100	0
	$N\text{-}NO_3$	Fed	100	100	95	95	100	0
Burlington	$N\text{-}NO_3$	Fed	100	100	100	100	65	0
	$N\text{-}NO_3$	Fed	100	100	95	100	90	0
	$N\text{-}NO_3$	Fed	95	95	100	90	60	0
US Lab	$N\text{-}NO_3$	Fed	100	100	100	100	60	0
	$N\text{-}NO_3$	Fed	100	100	100	95	20	0
	$N\text{-}NO_3$	Fed	95	100	100	90	20	0
Clear Pond	$N\text{-}NO_3$	Unfed	70	70	40	30	0	0
	$N\text{-}NO_3$	Unfed	90	45	85	45	25	0
	$N\text{-}NO_3$	Unfed	80	90	80	7	10	0
Burlington	$N\text{-}NO_3$	Unfed	100	100	70	65	15	0
	$N\text{-}NO_3$	Unfed	100	90	90	85	35	0
	$N\text{-}NO_3$	Unfed	100	100	100	90	20	0
US Lab	$N\text{-}NO_3$	Unfed	95	95	100	95	20	0
	$N\text{-}NO_3$	Unfed	100	100	100	85	30	0
	$N\text{-}NO_3$	Unfed	95	100	100	85	35	0