













<u>Sense</u>	<u>Symptom or Clue</u>	<u>Cause</u>	<u>Contaminant</u>	<u>Federal Standard</u>	<u>Health Effects</u>	<u>Treatment Options</u>
	Turbidity (cloudiness)	-organic or suspended matter; defective well screen or inadequate public treatment	dirt, sand, clay, silt, organic matter (Turbidity)	0.5 to 1 NTU (95% of samples) max of 5 NTU in some situations (2° MCL)	----	-ultra filtration -R-osmosis -distillation
	Blue-green stains on sink & porcelain fixtures	-corrosive water reacts with brass or copper pipes/fittings	Copper	1.3 mg/l (action level)	----	-cat ion exchange -R-osmosis -distillation
	Brown-red water, stains & discolored clothing	-naturally occurring iron -iron bacteria -leached from old pipe	Iron	0.3 mg/l(2° MCL)	----	-cat ion exchange -distillation -chlorination -filtration
	Yellow Water	-water passing through peaty soil & vegetation -"yellow" iron in water	Tannins, Humics, Lignins	15 color units (2° MCL)	----	-activated carbon -anion exchange -R-osmosis -distillation -chlorination
	Black staining of fixtures and laundry	-naturally occurring usually found with iron	Manganese	0.05 mg/l (2° MCL)	----	-cat ion exchange -distillation -chlorination -filtration

	Blackening & pitting of stainless steel sink	<ul style="list-style-type: none"> -excess salt concentration -road salting -improper treatment -brine backwash from water softener 	Chloride	250 mg/l (2° MCL)	<ul style="list-style-type: none"> -problem for individuals with hypertension 	<ul style="list-style-type: none"> -R-osmosis -anion exchange -distillation
	Milky water	excessive air or particles in water	particles, air	0.5 to 1 NTU (95% of samples) max of 5 NTU in some situations (2° MCL)	----	<ul style="list-style-type: none"> -service filters -let water stand -clean hot water heater
	Musty, earthy smell	<ul style="list-style-type: none"> -algae -vegetation 	-organic matter (leaves, algae)	----	----	<ul style="list-style-type: none"> -activated carbon -see other sources
	Chlorine smell	<ul style="list-style-type: none"> -excessive chlorination or inadequate dechlorination 	chlorine	----	----	<ul style="list-style-type: none"> -activated carbon -R-osmosis -contact lo
	Detergent smell (foamy water)	Wastewater discharge into water supply	<ul style="list-style-type: none"> -foaming agents -dilute sewage 	0.5 mg/l (2° MCL)	<ul style="list-style-type: none"> -risk of disease if bacteria present -harm to infants 	<ul style="list-style-type: none"> -eliminate source -chlorination

	Rotten egg smell	-sewage -sulfate reducing bacteria	Hydrogen sulfide (gas)	Add 3 threshold odor number (2° MCL)	gastrointestinal	-activated carbon -aeration -oxidation
	Alkali taste	-high mineral content in private well and/or any water supply	Minerals	500 mg/l total dissolved solids (2° MCL)	----	-R-osmosis -anion and cation exchange -distillation
	Metallic taste	-high mineral content (naturally occurring)	Iron, Manganese, Copper	Iron 0.3 mg/l Manganese 0.05 mg/l Copper 1.0 mg/l (2° MCL)	----	-cation exchange -R-osmosis -distillation -chlorination
	Salty, brackish taste	-road salting -salt water intrusion -naturally occurring in arid regions -water softener backwash	sodium, chloride, sulfate, salts	sulfate 250 mg/l chloride 250 mg/l (2° MCL)	problems for individuals with hypertension	-distillation -R-osmosis
	Soap curd, scum, white deposits in pipes, kettle, water heater	elevated levels of calcium & magnesium salts	hard water	----	----	-cation exchange -water softener
	Grittiness, Abrasive	defective well screen or inadequate public treatment	fine sand, grit	----	----	-sand trap ultra filtration

