

### Screening Quick Reference Tables (SQiRTs)

#### What are they?

These tables contain a range of levels, all relating to potential damage to aquatic life (tiny animals living in water) from different levels of contamination in surface water (rivers, ponds, bays, etc.) and sediment.

#### How are they used?

Like other screening levels, they are not legally binding. They are used as a quick comparison to measure the severity of contamination, and potential ecosystem effects.

#### How are they determined?

The levels are set by the National Oceanic and Atmospheric Administration (NOAA). There are levels for “No Observable Adverse Effects Level (NOAEL)” all the way to “Severe Effects Level (SEL)”. These levels are set based on lab experiments and tests of actual contaminated bodies of water. One of the most common levels used is the “Threshold Effects Level (TEL)” which is the lowest level of contamination thought to harm aquatic life.

#### For more:

[response.restoration.noaa.gov/environmental-restoration/environmental-assessment-tools](http://response.restoration.noaa.gov/environmental-restoration/environmental-assessment-tools)



Screening Quick Reference Table for Inorganics in Sediment

These tables were developed for screening purposes only; they do not represent official NOAA policy and do not constitute criteria or clean-up levels. All attempts have been made to ensure accuracy; however, NOAA is not liable for errors. Values are subject to changes as new data become available.

Analyte	All concentrations in parts per billion or parts per million specified otherwise	FRESHWATER SEDIMENT										MARINE SEDIMENT						
		"Background" <sup>1</sup>	ARCS <sup>2</sup>	TEL <sup>3</sup>	TEL <sup>3</sup>	LEL <sup>4</sup>	PEC <sup>5</sup>	PEL <sup>5</sup>	SEL <sup>4</sup>	UET <sup>1</sup>	T <sub>10</sub> <sup>5</sup>	TEL <sup>4</sup>	ERL <sup>6</sup>	T <sub>10</sub> <sup>5</sup>	PEL <sup>4</sup>	ERM <sup>6</sup>	AET <sup>7</sup>	
Aluminum (%)	Al	0.26%	2.55%															1.8% N
Antimony	Sb	160								3,000 M	650			2,400				9,300 E
Arsenic	As	1,100	10,798	9,790	5,900	6,000	33,000	17,000	33,000	17,000 I	7,400	7,240	8,200	20,000	41,800	70,000		35,000 B
Barium	Ba	700										130,100E						48,000 A
Cadmium	Cd	100-300	583	990	596	600	4,980	3,530	10,000	3,000 I	380	680	1,200	1,400	4,210	9,800		3,000 N
Chromium	Cr	7,000-13,000	36,286	43,400	37,300	26,000	111,000	90,000	110,000	95,000 H	49,000	52,300	81,000	141,000	160,000	370,000		62,000 N
Cobalt	Co	10,000								50,000+								10,000 N
Copper	Cu	10,000-25,000	28,012	31,600	35,700	16,000	149,000	197,000	110,000	86,000 I	32,000	18,700	34,000	94,000	108,000	270,000		380,000 MO
Iron (%)	Fe	0.99-1.8 %	19.84%			2%				4%	4% I							22% N
Lead	Pb	4,000-17,800	37,300	35,000	35,000	31,000	128,000	91,300	250,000	227,000 H	30,000	30,240	46,700	94,000	112,000	218,000		400,000 B
Manganese	Mn	600-1000	6300-10000			6000-10000				11000-100000								200,000 B

#### How are they related to human health?

SQIIRT levels are set based on ecological health, not human health. However, if a test result shows very high levels compared to a severe SQIIRT level, be careful around that body of water. You will want to see results from additional tests before swimming, drinking nearby well water, or eating fish from the contaminated water.